



ILRINET REVIEW REPORT

Prepared By



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1.0 Executive Summary

Started in 1999, Virtual City has grown from humble beginnings as a Web service company to one of the region's leaders in the development, implementation and management of Electronic Commerce, Mobile Commerce and Knowledge Management Systems. Virtual City's Knowledge Management Solutions comprise of customized software systems that enable customers to create, publish, read and search information electronically across a company.

Virtual City was contracted by the International Livestock Research Institute (ILRI), to evaluate the organization's intranet (referred to as ILRINET), and come up with recommendations on how to improve the services provided by the platform. This would then enable ILRI's staff to carry out their work more effectively and to communicate and collaborate with colleagues and peers independent on where they are located in the world.

The consultancy was conducted over a period of eight and a half days in the ILRI campuses in Addis Ababa, Ethiopia and in the Nairobi, Kenya. A number of staff from a variety of departments in ILRI were interviewed and the results of the interviews have been used to form the basis of this report.

The report first gives a small background on ILRINET then highlights its strengths and weaknesses. It then goes on to give a set of recommendations on how ILRINET can be revamped and revitalized complete with a roadmap detailing the steps that need to be taken along the way.

In summary, in the space of approximately four years, ILRINET has become an essential and popular tool in ILRI used primarily for communication. ILRINET is also acts as an administrative tool helping ILRI employees perform administrative tasks more effectively. The Partnership and Communication team and especially the Web Team have done a lot to ensure ILRINET is a widely used and effective tool within the organization.

ILRINET weaknesses include a lack of policies and systems to ensure focal points (ILRINET users mandated to update certain sections of the site) are effectively updating the intranet. This has resulted in a situation where some sections of ILRINET are not regularly updated. The site layout is also not very user-friendly and takes a while to load especially for users with old computers.

In addressing these and other issues, we recommended the redevelopment of ILRINET with a view towards making ILRINET a more effective:

- Collaboration tool
- Communications tool
- Gateway into the Knowledge Management systems
- Administrative tool

The revamped ILRINET would be aimed to the main user groups of ILRINET who are;

- 1) Researchers/Scientists
- 2) Service Staff e.g. Public Awareness department, I.T staff, Finance staff, H.R staff etc
- 3) Administration staff e.g. seminar/workshop organizers, catering staff, housing staff, engineering staff etc

The report highlights the challenges of revamping ILRINET but it also details suggestions on how these challenges can be overcome. Finally, report also drafts a roadmap that can be used to take ILRINET from its current state to its desired state.

In order to ensure the success of the future ILRINET, it is imperative that current and future information systems purchases by ILRI have been thoroughly evaluated and vetted to ensure that they can be quickly and easily extended to ILRINET. This will ensure that ILRINET users have one window of access to information systems and applications hereby making it easier for ILRINET to fulfil its goals.

2.0 Background

The International Livestock Research Institute (www.ilri.org) has a mandate to enhance the well-being of present and future generations in developing countries through research to improve sustainable livestock production. It works in partnerships and alliances with other organizations, national and international, in the fields of livestock research, training and information exchange. ILRI was formed in 1994. Its headquarters are in Nairobi, Kenya, with offices in seven more countries around the world.

The International Livestock Research Institute (ILRI) works at the crossroads of livestock and poverty, bringing high-quality science and capacity-building to bear on poverty reduction and sustainable development. ILRI works in Africa, Asia and Latin America and the Caribbean, with offices in East and West Africa, South and Southeast Asia, China and Central America.

ILRI is a non-profit-making and non-governmental organization with headquarters in Nairobi, Kenya, and a second principal campus in Addis Ababa, Ethiopia. The organization employs over 700 staff from about 40 countries. About 80 staff are recruited through international competitions and represent some 30 disciplines. Around 600 staff are nationally recruited, largely from Kenya and Ethiopia.

Vision

A world made better for poor people in developing countries by improving agricultural systems in which livestock are important.

Mission

The International Livestock Research Institute (ILRI) works at the crossroads of livestock and poverty, bringing high-quality science and capacity-building to bear on poverty reduction and sustainable development for poor livestock keepers and their communities.

ILRI works in partnerships and alliances with other organizations, national and international, in livestock research, training and information. ILRI works in all tropical developing regions of Africa, Asia and Latin America and the Caribbean.

ILRI is one of 15 Future Harvest Centres, which conduct food and environmental research to help alleviate poverty and increase food security while protecting the natural resource base. The Centres are funded by government agencies, development banks, private foundations and regional and international organisations and are supported by the Consultative Group on International Agricultural Research (CGIAR).

The CGIAR is an association of public- and private-sector institutions. Its mission is to contribute to food security and poverty eradication in developing countries through research, partnership, capacity building and policy support. The co-sponsors of the CGIAR are the World Bank, the United Nations Development Programme, the Food and Agriculture Organization of the United Nations and the International Fund for Agricultural Development.

Governance

ILRI is guided by a board of trustees comprising 12 leading professionals in relevant research, development and management issues. The institute belongs to the CGIAR, an association of more than 60 governments and public- and private-sector institutions supporting a network of 15 agricultural research centres working to reduce poverty, hunger and environmental degradation in developing countries.

3.0 ILRINET Introduction

3.1 ILRINET History

ILRINET was created and launched in 2003 and is the first institutional Intranet of the International Livestock Research Institute (ILRI). It was produced to improve internal communications within the two main ILRI campuses in Nairobi (Kenya) and Addis Ababa (Ethiopia), and other satellite branches in the rest of the world.

ILRINET has been very effective as an organizational Intranet because it has been able to effectively combine three attributes of effective Intranets i.e. creating self-service tools, organizational communication and information sharing. The Intranet is arguably the best one in the region and ranks highly compared to Intranets all over the world. The Web Team has shown a lot of passion, dedication, innovation and perseverance in getting ILRINET to where it is know and should be highly commended for their work

3.2 Services of ILRINET

- Acts as an organizational communication tool helping the organization communicate to its employees more effectively
- Acts as an administration tool helping ILRI staff from both the Nairobi and Addis Ababa campuses and all over the world gain access to resources for the services sections e.g. Human Resource documents e.g. Leave forms, policies etc from the Human Resource section, Information Technology manuals and policies, Finance information etc.
- Assist researchers and scientists gain access to Knowledge Management tools and external databases through links to CGIAR databases and to the ILRI publications in the Infocentre.

3.3 Benefits of ILRINET

- Helps ILRI staff stay in touch with what's happening in the organization.
- Helps the Partnerships and Communications department communicate organizational news, changes and policies more effectively to ILRI staff
- Helps research staff gain access to the latest publications and periodicals in the organization
- Helps research staff gain access to knowledge management tools

3.4 Contents of ILRINET

Content of ILRINET can be split into the following categories:

CATEGORY 1 – INTERNAL COMMUNICATION	CATEGORY 2 – RESEARCH
<ul style="list-style-type: none"> - What's happening - Latest posting - Audio/Video recording - Events - Picture of the day - Announcements 	<ul style="list-style-type: none"> - DDG Research - Targeting & Innovations - Market opportunities - Biotechnology - People, livestock, environment - Infocentre
CATEGORY 3 – ADMINISTRATION	CATEGORY 4 – SENIOR MANAGEMENT
<ul style="list-style-type: none"> - Internal Audit - HRFA - HR - Finance - I.T - Travel - Partnerships & Communication 	<ul style="list-style-type: none"> - Director General's Office - Deputy Director Generals Office - Board of Governors page

3.5 ILRINET Technical Platform

ILRINET has been developed on a number of platforms and is hosted on 2 separate servers. The main server uses MS Windows Server 2003 as its operating system while the other server uses Debian Linux as its operating system.

The primary platform which consists of majority of the site and the Content Management System (CMS) is powered by a Microsoft SQL 2000 database with the application platform as Microsoft Active Server Pages (ASP). The other major application is called Phprojeckt and runs on a Debian Linux server with MySQL as its backend database.

The following table lists the major applications running on ILRINET servers

APPLICATION	Platform/Database	SERVER OS	USE
Content Management System (CMS)	ASP/MS SQL	Windows 2003 Server	Used to manage content on ILRI. Acts as an interface between the Intranet and the backend databases. Focal points are trained on how to use the CMS in order to update their sections of the Intranet
PhProjeckt	PHP/MySQL	Debian Linux	A groupware application combining web based email, calendaring, project management, task management and other utilities in one web-based application. Not actively used despite it potential for enhancing collaboration
Public website – www.ilri.org	ASP/MS SQL	Windows 2003 Server	The public website for ILRI. No connection with ILRINET apart from being hosted on the same server. Uses a different Content Management System than the one used by ILRINET

Both servers are located in a hosting facility in California, USA. The public website and ten other websites are also hosted on the servers. Future plans are underway to replicate ILRINET in both the Nairobi and Addis Ababa campuses ensuring local users in both campuses can access ILRINET quickly.

ILRINET has over 700 users. Internet Protocol (IP) authentication is used to authenticate users in the Nairobi and Addis Ababa campuses. Some sections of the site have restricted access for security reasons. ILRI users access ILRINET through a username/password assigned to them by the Web Team staff.

Every department in ILRI has specific people assigned to update content on ILRINET in the context of their respective departments only. These people (known as focal points) can only add/edit/delete content pertaining to their respective departments.

Web Team members have full access to all sections of ILRINET apart from restricted areas. The restricted areas mainly host information on:

- Upcoming Board of Governors meetings. Access is derestricted one the meetings have been held
- Resource Mobilization information
- Director General's section
- Finance section

Full access to these areas is limited to Birru Dori (the Web Team head) and focal persons assigned to that area. The public website uses a different CMS system from ILRINET.

There has been only one case of a hacker gaining access to the public website through a flaw in MS SQL server. The flaw was immediately patched and security measures put in place to ensure this does not happen again.

4.0 ILRINET Consultancy Report

Virtual City was contracted by International Livestock Research Institute (ILRI) to conduct a review of their intranet, ILRINET, and draft a report with suggestions on how the Intranet can be improved.

Over the course of a week, the Virtual City team conducted a series of interviews with ILRI members of staff based in Addis Ababa, Ethiopia and Nairobi, Kenya.

4.1 Consultancy Methodology

The Intranet consultancy was initiated with the goals of identifying:

- Issues with the existing Intranet
- Information needs of staff
- Organizational issues and roadblocks impacting on ILRINET usage
- Opportunities for delivering new capabilities and tools
- Key goals for ILRINET
- Concrete roadmap for improving the intranet

These goals all followed a well-tested methodology that recognizes that there are five main aspects of an intranet that need to be explored:

- Strategy
- Design
- Content
- Change management & communication
- Technology

A questionnaire was then designed based on the well-established [SERVQUAL](#) instrument developed by Parasuraman et al (1985, 1988) using a set of items (dimensions) that reflect a model of perceived Service Quality. Statements are used to measure expectation and perception (experience) for different dimensions as shown below:

1. **Reliability:** Provide accurate information and consistency. ILRINET is dependable with minimum downtime, content and information is up-to-date and accurate, Intranet look and feel is user friendly.
2. **Responsiveness:** Fast Website, easy access and willingness to provide help. E-mail address / helplines available for support and suggestions, ILRINET response times are fast and reliable, ILRINET content publishers always open to suggestions.
3. **Assurance:** Credible information, secure and allows users to inspire trust and confidence. ILRINET content is appropriate and relative to ILRI, the organization policies are accessible.
4. **Empathy:** Caring communication provides individual attention to users. ILRINET content is easy to understand, ILRINET is assisting users to collaborate, share and exchange ideas and also encouraging team building.

5. **Tangibles:** Appearance of the Intranet site. Information is found with minimum key-clicks, the Intranet home page is visually appealing and site navigation is consistent.

Those with access to ILRINET in Addis Ababa and Nairobi were the main target of this study. Each question provided a 5-point scale on which the respondents could assess importance and performance of different aspects of the service as well as some demographic items to allow for analysis. Overall user responses are shown in the table below.

Table 1: ILRINET User Perceptions

User Responses		
	Positive Comments	Criticisms
Reliability	<ul style="list-style-type: none"> ▪ ILRINET is dependable, rarely goes down and in most cases this happens when Internet connection is down ▪ Content on some sections such as What's new, pic of the day etc is regularly updated 	<ul style="list-style-type: none"> ▪ ILRINET is abit hard to use especially when user is new to the organization ▪ Not easy to quickly find information with the current information architecture ▪ Information on themes in ILRINET is not consistent with what's on the public website
Responsiveness	<ul style="list-style-type: none"> ▪ Web Team responds quickly to user enquiries, helps focal points update ILRINET, occasionally updates ILRINET on behalf of focal points ▪ Email addresses available to contact Web Team ▪ Content on some sections such as What's new, pic of the day etc is regularly updated 	<ul style="list-style-type: none"> ▪ Focal points do not have a lot of flexibility when they want to change how content appears on their section, have to liaise with Web Team
Assurance	<ul style="list-style-type: none"> ▪ ILRINET content is relevant to ILRI, does not contain info on other organizations (apart from job openings section) 	<ul style="list-style-type: none"> ▪ The lack of constant updating on some sections of ILRINET makes users lose faith in the accuracy of that content ▪ As mentioned before, there is a discrepancy in information on themes in ILRINET and the public website, people will question why
Empathy	<ul style="list-style-type: none"> ▪ ILRINET content is relevant to ILRI, does not contain info on other organizations (apart from job openings section) 	<ul style="list-style-type: none"> ▪ ILRINET can do a lot more to enhance collaboration and communication, only available tool for collaboration is the groupware application which is not widely used
Tangibles	<ul style="list-style-type: none"> ▪ Easy to go to different sections of the Intranet from the frontpage 	<ul style="list-style-type: none"> ▪ Site navigation can be more intuitive, there are too many links on the frontpage of ILRINET (approximately 20). Some links are repeated e.g. Infocenter, This leads to information overload.

Analysis on the five service dimensions shows clearly that in most instances user satisfaction is impressive and above average. The following pages highlight ILRINET's strengths and weaknesses pertaining to the above areas and form the basis for the set of recommendations that follow.

4.2 ILRINET Strengths

1) ILRINET Usage

Due to various factors primarily constant email updates sent to ILRI staff which are linked to ILRINET and the configuration of ILRINET on the proxy server ensuring that ILRINET is the first webpage that user's view once they logon to their computers, ILRINET is constantly viewed by ILRI staff. However usage varies depending on the purpose of the visit and the staff member. Research staff tend to view ILRINET 2-3 times a week while administration staff will view ILRINET more frequently. Both categories of users will actively view ILRINET when they need administrative information, documents and tools such as Human Resource (HR) leave forms, per diem rates, finance information etc.

The most important information needs met on the intranet in order of importance were:

- i) Organization news, highlights
- ii) HR, Finance, Administration information
- iii) Knowledge management information e.g. Infocentre, research publications etc
- iv) Employee phone directory

2) Arousing Interest and Awareness of ILRINET

The ILRINET Web Team has risen up to the challenge of maintaining interest in ILRINET by creating and updating features especially on the ILRINET homepage that have increased awareness of what's going on in ILRI and thereby driving traffic to ILRINET. Such features include the 'Pic of the Day', 'Weekly news' etc. are good public relations tools that ensure users are constantly viewing the site. They have also marketed the site through regular e-newsletters sent out to all ILRI staff and linked to ILRINET.

3) Minimal Downtime

ILRINET is hosted in a web-hosting facility based in the United States which ensures that the site is easily accessible in both Addis Ababa and Nairobi and all over the world. In most cases the only times when ILRINET is down is when Internet facilities in the local areas are not functioning properly. The Web Team has also been proactive in ensuring Intranet security protocols are adhered to and backend software is regularly updated to ensure that the Intranet is not vulnerable to attack by malicious users.

4) Content Updating

The Web Team has been very instrumental in ensuring that focal points are updating the site. In quite a few instances, the Web Team updates ILRINET on behalf of a focal point i.e. the focal point sends the material he/she wants updated to the Web Team who update the section. The constant communication and good relations between the Web Team and the focal points has ensured most sections of ILRINET are updated regularly.

5) Constant Innovation

The Web Team has been quite innovative in introducing new features and tools in ILRINET which have helped users work better on ILRINET. Items like the groupware tools have been well thought out and implemented. The abilities and experience of the Web Team in software development and web development is a strong foundation to start on and should be exploited a lot more to ensure that more offline tools and processes can be extended to ILRINET thereby making the organization more efficient and helping to reduce the cost of running the organization.

4.3 ILRINET Weaknesses

1) Lack of Ownership of ILRINET

After numerous interviews with ILRINET users and after careful observation of ILRINET one of the most important observation noted was that the most regularly updated sections of ILRINET were also the most popular with most of the users. In most cases these sections were where there was common interest from a lot of users hence the need to constantly ensure information is regularly updated. The conclusion was that this happened because someone took (or was given) responsibility to update the section and assumed ownership of the section e.g. What's new, what's happening, Picture of the day etc.

The structure of ownership in regards to ILRINET has resulted in a situation where there is no clear leadership and ownership of ILRINET. The Web Team was mandated to design and develop the technical platform for ILRINET, a job which they have successfully managed since inception of ILRINET. However, just as it is important to develop a robust, scalable and flexible technology platform for ILRINET, it is also important to ensure the platform is regularly updated with content that is up-to-date, accurate and of relevance to the particular user. The focal points in all departments in ILRI were trained on how to update and manage content for their section of ILRINET, a strategy which has not been thoroughly effective because there is no one assigned to the task of ensuring that the focal points are regularly updating content to the Intranet. No one has the responsibility of ensuring that content on ILRINET is relevant to the users of ILRINET.

There is no one to verify the accuracy of content in the site which has led to one of the most important questions that will need to be addressed for ILRINET to fulfill its full potential;

- **Is ILRINET a technology tool or a communications tool or a collaboration tool or a combination of all the above? Whatever tool it may be, who is in charge of it?**
- **Who is ultimately responsible for content in ILRINET?**

2) Lack of an Intranet Policy

The lack of an Intranet policy has hindered the development of ILRINET in two main areas;

- i) In ensuring that the Intranet is in touch with and is adhering to the organization's current vision, mission, challenges, aims and objectives. This ensures that there is a long-term strategy for the Intranet that is in line with the organization's strategy and thinking
- ii) In ensuring that there are rules and protocols in place that guide the development of ILRINET in all areas; from a technical perspective to a social and managerial perspective. Just as a society needs laws to govern it, an Intranet needs a policy guide to govern the way the Intranet is used within the organization. Such a guide would be helpful in:
 - Putting in place structures that ensure focal points are well trained in updating the Intranet and do so regularly
 - Ensuring ILRINET content is accurate and of significance to the user
 - Ensuring current and future information systems purchased or developed by the organization can be successfully and easily adapted to ILRINET.

3) Site Layout/Information Architecture

There were numerous complaints from users in regards to the layout and information architecture of ILRINET. One of the common complaints was that the site was not easy to navigate especially if the user was a new member of staff and was not familiar with all the ILRI departments/sections.

The section highlighted in Figure 1 represents the major entry point for the site. Unfortunately the links are inconsistent and ungrouped resulting in confusion and disorder. Screen resolution has been designed to fit computer screens of 800 by 600 pixels, However most modern websites e.g. www.yahoo.com, www.cnn.com, www.msn.com etc have redesigned their websites to fit the larger 1024 by 768 pixels resulting in a well spaced design with more information making it pleasant to the eye.

Figure 1: The highlighted section shows the major entry point to other sections in ILRINET.



5.0 ILRINET Recommendations

5.1 ILRINET Future Model: An Enterprise Information Portal

Based on the state of ILRINET, the needs of ILRI staff and prevalent technologies and trends in regards to Intranet technology, the desired model for the future ILRINET will be an **Enterprise Information Portal** that serves four basic functions;

- 2) Acts as a Communication Tool
- 3) Acts as a Collaboration Tool
- 4) Acts as an access point to Knowledge Management applications
- 5) Acts as an Administration tool

What is an Enterprise Information Portal?

The enterprise information portal (EIP), also known as a business portal, is a concept for a Web site that serves as a single gateway to a company's information and knowledge base for employees and possibly for customers, partners, and the general public as well.

In one model, an EIP is made up of these elements: access/search, categorization, collaboration, personalization, application integration, and security.

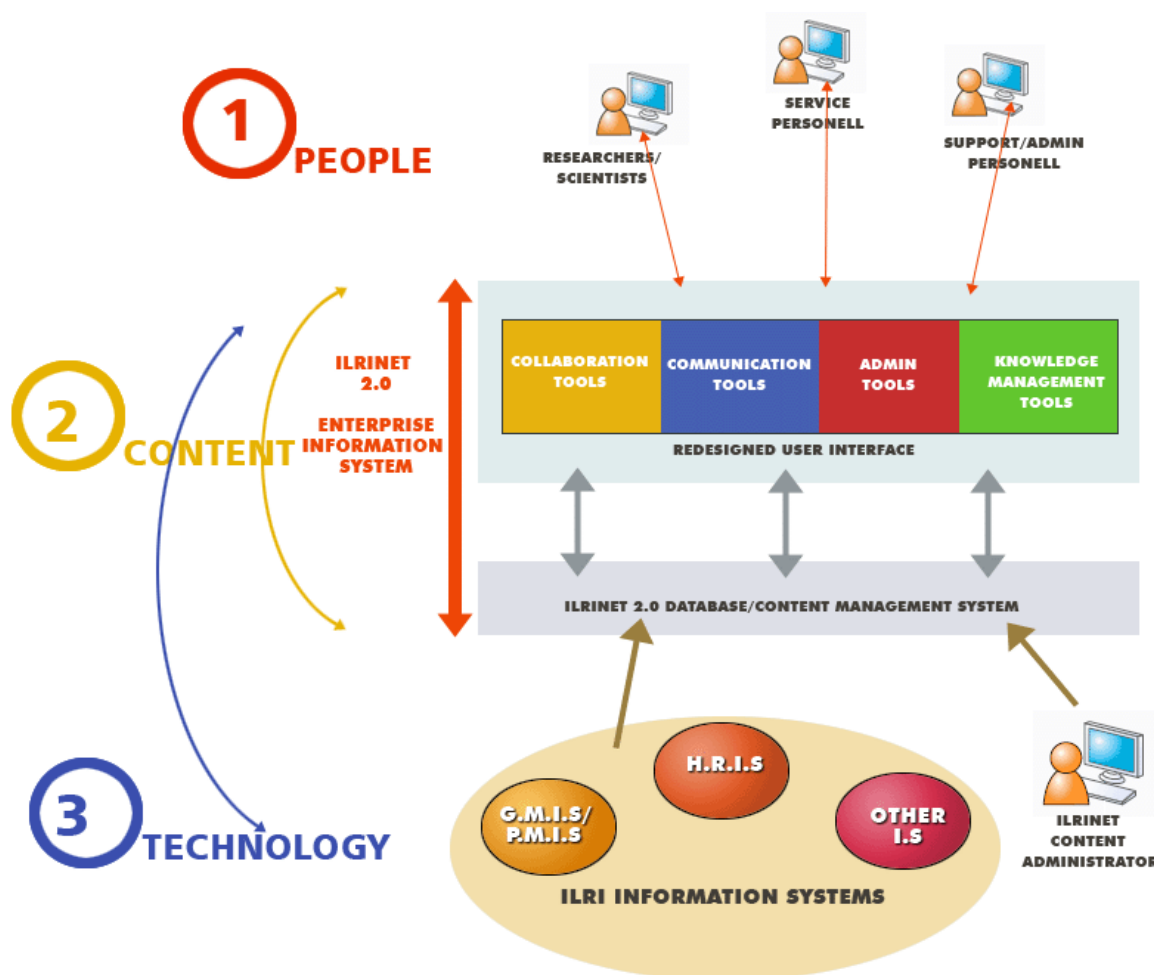
- **Access/search:** Access/search allows a user to get all the information needed (but no more) in the desired context. For example, a Human Resources Officer does not need research proposal information to approve a request for leave days. An EIP makes sure the officer gets only the information needed.
- **Categorization:** An EIP categorizes all information so that it is delivered to the user within the context needed (think of the subject structure on Yahoo)
- **Collaboration:** An EIP allows individuals to collaborate regardless of geographical location.
- **Application integration:** This allows individuals to deliver, access, and share information regardless of applications used.
- **Security:** This provides information to users based on security clearance. The user logs on and is given access only to information that the user is authorized to access.

The portal will be aimed to the main user groups of ILRINET;

- 1) Researchers/Scientists
- 2) Service Staff e.g. Communication department, I.T staff, Finance staff, H.R staff etc
- 3) Administration staff e.g. seminar/workshop organizers, catering staff, housing staff, engineering staff etc

And the portal will be designed and developed in the knowledge that successful Intranets are a merger of;

- 1) People e.g. users, content managers, developers, designers, communication specialists etc
- 2) Content e.g. What's new, Infocenter,
- 3) Technology e.g. Online H.R processes, online Finance processes, online grants processes etc.



An Enterprise Information Portal can be simply described as an information system that aggregates information from various sources in an organization, from applications to databases to knowledge management tools and makes this information available to users in a single view

This means that the next generation of ILRINET will be pulling content from:

1. Multiple information systems currently running in ILRI e.g. Human Resource Information System, Finance Information System, Grants Management Information System, Proposals Management Information System, Contacts Information system etc.
2. Knowledge databases currently available in ILRI e.g. Infocenter
3. External databases available for ILRI staff use
4. Content generated by ILRI and its partners
5. Content that is of general interest to ILRI staff

And making this content available on ILRINET.

As mentioned before, the **Enterprise Information Portal** or **ILRINET 2.0** will serve four basic functions:

1) Communication Tool

The present model of ILRINET has been fairly successful as a communications tools helping the organization communicate to its staff more effectively. Features like 'What's happening', 'Picture of the Day', 'Latest Postings' etc. have ensured that ILRINET's best feature is the ability to communicate to ILRI staff on the latest developments of the organization.

The next step is to enhance the existing communication features on ILRINET to make them more relevant to the various categories of ILRINET users i.e. scientists, researchers, administration staff etc.

Goals

The goals of the Intranet will be to enhance communication in the following areas:

- 1) ILRI to ILRINET user - The organization communication to its staff
- 2) ILRINET user to ILRINET user – ILRI staff communication to each other
- 3) ILRINET user to the ILRI. – ILRI staff communicating to the organization.

Goals	How To
ILRI to ILRINET users	<ul style="list-style-type: none"> - Creation of regular eNewsletter updating ILRI staff on latest happenings in the organization - Development of regularly updated and interactive blogs for senior management - Access to regularly updated organizational documents e.g. I.T policy, H.R policy, organization themes/projects etc
ILRINET user to ILRINET user	<ul style="list-style-type: none"> - Enhance staff directory with information on a staff member's qualifications, publications, previous assignments, research etc. - Development of group wiki's i.e. specialized group collaboration tools that allow a group to discuss/edit a topic e.g. best practices manual, field research findings etc.
ILRINET user to ILRI	<ul style="list-style-type: none"> - Creation of a 'fun section' for ILRI staff

2) Collaboration Tools

ILRI is primarily a research organization and hence one of the biggest aims of ILRINET should be to provide a platform that enhances communication and collaboration between researchers, scientists and the external research community especially in areas such as proposal writing, best practices, latest research findings etc.

Goals

ILRINET 2.0 will enhance collaboration in the organization in the following groups of users;

- 1) Researcher to Researcher
- 2) Researcher to Service/Admin staff
- 3) Service/Admin staff to Service/Admin staff

Groups	How To
Researcher to Researcher	<ul style="list-style-type: none"> - Development of a specialized researcher/scientists search engine that gives information on a researcher's background, qualifications, contacts, previous/current research - Ability for researchers to create collaborative items such as discussion forums, blogs and wikis - Ability for researchers to view latest requests/calls for proposals from the donor community
Researcher to Service/Admin staff	<ul style="list-style-type: none"> - Access to Proposal/Grants Management Systems allowing researchers to collaborate with service/admin staff to reply to calls for proposals, draft proposals etc - Web-based tools allowing researchers to work better by simplifying paper based processes especially for: <ol style="list-style-type: none"> 1. Requisition tools for laptops/computers, courier services etc. 2. Booking tools for boardrooms, campus lecture halls, hostel facilities, seminar/workshop facilities 3. Human resource tools e.g. web-based leave application tools, job application tools etc 4. Finance tools e.g. latest per diem rates, latest currency rates, cost codes etc.
Service/Admin staff to Service/Admin staff	<ul style="list-style-type: none"> - Access to Proposals/Grants management systems allowing users from different departments to collaborate on draft proposals, budgets etc

3) Knowledge Management Tool

As a major research organization in the region and all over the world, ILRI has generated, and continues to generate a vast amount of Knowledge. This knowledge or Intellectual Property (IP) needs to be effectively disseminated to ensure that ILRI fulfills its vision of improving as livestock agricultural systems.

Goals

Knowledge management will help the organization in disseminating information through the following channels:

- 1) ILRI to ILRINET users
- 2) Researchers to ILRI users
- 3) Researchers to researchers

Groups	How To
ILRI to ILRINET users	<ul style="list-style-type: none"> - Regular updates on: <ol style="list-style-type: none"> 1. Latest research papers, publications etc. 2. Latest grants awarded 3. Current projects update 4. Current themes update
ILRI to researchers	<ul style="list-style-type: none"> - Access to knowledge base on previous/current research - Access to external databases connected to other CGIAR bodies
Researchers to researchers	<ul style="list-style-type: none"> - Updating staff directory to make it more informative especially to the needs of researchers in regards to proposal writing, referrals etc - Creation of Wikis that can be used by staff to collaborate on a specific topic e.g. creating/editing a best practices manual etc.

4) Administration Tools

With a large number of its staff either mobile or located in campuses and satellite offices all over the world, one of the key functions of ILRINET should be to act as an administration tool helping ILRI staff better manage their work and ultimately helping to reduce employee overhead, streamline business processes and result in a more paperless organization.

Administration tools are used by all groups of users in ILRINET. The

Groups	How To
ALL	<ul style="list-style-type: none"> - Extension of HRFA (Human Resource, Finance, Travel, and Administration) tools to ILRINET. These tools will allow ILRINET users to:

5.2 Challenges & Solutions for Developing an Enterprise Information Portal

As ILRI develops a framework for migrating ILRINET to an Enterprise Information Portal, a number of challenges will have to be addressed from a wide range of areas. These areas are:

- 1) Governance
- 2) User needs/experience design
- 3) Technology
- 4) Training

1) Governance: Organizational structure, policies and procedure

The current governance model for ILRINET has not been very clear in regards to the following areas:

- What are the goals of ILRINET?
- Who is in charge of ILRINET?
- Who manages the content in ILRINET?

The following table outlines the challenges above and gives solutions to these challenges.

Challenge	Solution
<p>Direction</p> <ul style="list-style-type: none"> There is no organization policy to outline the vision, aims and use of ILRINET especially in regards to the organizational vision, mission, and objectives. 	<p>Formulate an Intranet governing committee drawn from various departments in ILRI (ensuring buy-in and participation from ILRI staff) that will:</p> <ol style="list-style-type: none"> Establish the vision and objectives of ILRINET inline with ILRI's vision, mission and objectives Define and draft an Intranet policy that outlines: <ul style="list-style-type: none"> The role of ILRINET in the organization and how ILRINET will help ILRI achieve its vision, mission and objectives Information Management policies that will help ILRINET achieve its goals. The management structure of ILRINET Define roles and responsibilities and the decision-making process and high-level polices for content development and publishing. Manage the process of porting business processes and applications to web-based applications
<p>Management</p> <ul style="list-style-type: none"> The Web Team is in charge of the technical platform however they are not mandated to ensure focal points are regularly updating the Intranet The Web Team also do not have the skills-set to aggregate content from various sources in ILRI and create content for ILRINET that will be of interest and benefit to ILRI users 	<p>Designate a person (or group of people) in charge of ILRINET especially in regards to content management and development. The duties of this person would be to:</p> <ul style="list-style-type: none"> Collect, create and aggregate content for ILRINET from the various publications, news items, events, workshops, seminars, Intellectual Property and knowledge being disseminated by ILRI and package this information into a user-friendly format for consumption by ILRINET users Ensure content on all sections in ILRINET remains uptodate by ensuring focal points are constantly updating ILRINET and information on ILRINET 2.0 is up-to-date and relevant to users. Coordinate ILRINET e-newsletter updates between the Web Team and the Communications department

2) User Needs/Experience Design: Specific needs of users accessing the intranet

Challenge	Solution
<ul style="list-style-type: none"> • The different users of ILRINET have different information requirements, the Enterprise Information Portal has to manage a delicate balancing act that ensures these user's needs are adequately met • There is an urgent need to streamline ILRINET's information architecture in order to make it easier to view and use and also to foster and enhance collaboration between ILRINET users. 	<p>1) Conduct an in-depth content inventory of ILRINET, i.e. a detailed listing of all the pages in the Intranet, that will be used to:</p> <ul style="list-style-type: none"> • Gain a comprehensive understanding of what content is available on ILRINET • Identify content owners • Identify content that is outdated and unnecessary <p>2) Based on the content inventory, categorize the content on ILRINET based on the different groups of users:</p> <ol style="list-style-type: none"> 1) Researchers/Scientists 2) Support Services 3) Administration 4) Senior Management <p>3) Develop a draft information architecture (site structure) with the help of a team of ILRINET users drawn from the various groups of users.</p> <p>4) Conduct usability tests of the draft information architecture to determine whether the architecture meets the needs of ILRINET users. Based on the result of the test, revise the Information Architecture draft until a final draft is achieved.</p>

3) Technology: Deployments of package or custom built software

Challenge	Solution
<ul style="list-style-type: none"> • Create a single sign-on for users ensuring that users are authenticated and signed on to ILRINET based on their computer logon details therefore making it easier to manage users 	<p>Consolidate existing Contact Management Systems into one central system which is managed and updated by an ILRI member of staff.</p>
<ul style="list-style-type: none"> • Integrate ILRINET to existing and future information systems e.g. Human Resource Information System, Finance Information System, Proposals/Grants Management Information System 	<p>1) Carry out an audit of each Information system to find out:</p> <ul style="list-style-type: none"> • What features of the information system ILRINET users would want on ILRINET • Features of the information system • Possibilities/challenges of extending the information system to ILRINET <p>2) If the audit report recommends extending the information system to ILRINET, then assemble a technical team that will handle and oversee this process.</p>
<ul style="list-style-type: none"> • The existing search engine for ILRINET is not handling searches very well because focal points, when updating content, do not key in required tags to ensure data is indexed on the search engine 	<ul style="list-style-type: none"> • Ensure that the Intranet policy drafted by the Intranet committee puts in place strict guidelines on how content is updated onto ILRINET • Enforce keying in of tags in the Content Management System using programming tools and scripts

4) Training: Typical training programs conducted for ILRINET users

Challenge	Solution
<ul style="list-style-type: none"> • The redesigned user interface will put pressure on focal points to ensure that content is regularly updated 	<ul style="list-style-type: none"> • The Web Team will have to come up with a training program for focal points. • A procedure will have to be put in place to ensure that new focal points are trained
<ul style="list-style-type: none"> • The adoption of new Web 2.0 technologies like Wiki's and blog's will mean that ILRINET users might need training on how to effectively use these tools 	<ul style="list-style-type: none"> • The Web Team can create a user manual available on ILRINET that guide's user's on how to use the new technologies.

5) Adoption: Strategies used to fuel adoption and repeat usage of ILRINET

Challenge	Solution
<ul style="list-style-type: none"> • Unfamiliarity with new existing information architecture and an inherent unwillingness to adopt new processes might hinder ILRINET users from quickly adopting the new ILRINET 	<ul style="list-style-type: none"> • The intranet team should conduct campus-wide pre-launch demonstrations of the revamped ILRINET to users to ensure most users are familiar with the revamped intranet and have a good working knowledge of its new features • The inclusion of users from different departments in ILRI when drafting the Intranet policy paper and when developing information architecture prototypes will ensure that there is buy-in from users across ILRINET and will also generate interest and excitement in the new intranet.

5.3 A Roadmap toward developing an Enterprise Information Portal

The following roadmap describes a methodology that can be used to transform the existing ILRI Intranet, ILRINET, to a robust Enterprise Information Portal.

Beyond just implementing software or redesigning the site, the roadmap covers activities in five key phases:

- Phase 1 - Strategy
- Phase 2 - Design
- Phase 3 - Content
- Phase 4 - Change & communications
- Phase 5 - Technology

This is a holistic approach that ensures all the activities required for a successful re-launch of ILRINET are addressed. It also lists the key activities in each phase.

Phase 1 – Strategy

This phase creates a solid foundation for the development of the system

Activity	Objectives
Establish Intranet Management Team	<ul style="list-style-type: none"> Establish an Intranet team that will take over the process of transforming ILRINET. Membership should be drawn from the various groups of users in ILRI to ensure the widest representation in the panel.
Define ILRINET and develop organizational Intranet strategy	<ul style="list-style-type: none"> The Intranet team will first conduct an indepth Needs analysis of the current Intranet and draft a Organizational Intranet policy paper detailing: <ol style="list-style-type: none"> Aims of the revamped Intranet inline with the organization's vision, mission and objectives Outline the role of the Intranet in the organization Establish Intranet ownership, governance, management and reporting structures
Establish Intranet Team	<ul style="list-style-type: none"> Assemble and commission an Intranet Team that will be responsible for: <ol style="list-style-type: none"> The technical process of developing the portal The communication process of ensuring stakeholders in the project are kept aware of progress and also creating public awareness and generating excitement on the project Developing a training program that ensures relevant users in the organization will be adequately trained on updating the system

Phase 2 – Design

Continues from the strategic phase by designing the key elements of the Intranet. Activities in this stage include:

Activity	Objectives
Develop Information Architecture	<ul style="list-style-type: none"> Information architecture (or site structure) determines how the content in the Intranet is laid out. The Intranet Team with the help of ILRINET users, will develop a new information architecture which can be used to develop wireframes
Develop wireframes	<ol style="list-style-type: none"> Wireframes (a visual presentation of the way users navigate around ILRINET or the location of elements in a page) are designed at this level.
Develop page layouts	<ul style="list-style-type: none"> A number of sample page layouts are designed at this level giving the team an idea on how the information architecture looks at this stage.

Phase 3 – Content

Activity	Objectives
Conduct a content inventory	<ul style="list-style-type: none"> • Conduct an in-depth content inventory of ILRINET, i.e. a detailed listing of all the pages in the Intranet, that will be used to: <ul style="list-style-type: none"> - Gain a comprehensive understanding of what content is available on ILRINET - Identify content owners - Identify content that is outdated and unnecessary
Train content authors	<ul style="list-style-type: none"> • Identify content that is outdated, unnecessary or which needs to be created. Train content owners on how to update content using the content management systems

Phase 4 – Change and communication

Activity	Objectives
Prepare launch plan	<ul style="list-style-type: none"> • Prepare a plan, with the help of the communication department, on how the Intranet will be launched. Activities that need to be planned for include pre-launch demonstrations and internal marketing
Train intranet users	<ul style="list-style-type: none"> • Train intranet users on how to use the new tools and features of the Intranet. Train focal points on how to use the content management system

Phase 5 – Technology

Activity	Objectives
Evaluate CMS	<ul style="list-style-type: none"> • Evaluate the current content management system to find out whether it is capable of effectively handling new content
Develop web-based applications	<ul style="list-style-type: none"> • Develop web-based applications that can be used to help intranet users work more effectively. Such applications include: <ul style="list-style-type: none"> -
Extend Information systems to the Intranet	<ul style="list-style-type: none"> • Extend or port existing information systems to the intranet. Such applications would include: <ul style="list-style-type: none"> - Human Resource Information System - Finance Information System - Proposals/Grants Management Information System - Contacts Information System

Decommission old Intranet	<ul style="list-style-type: none">• Migrate content to the new portal.• Test the portal with a set of users for feedback on response times, quality, CMS capabilities etc• Decommission old intranet and commission new portal.• Ensure usage reports are being generated to gauge the response of launching the portal.
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6.0 Conclusion

Intranets are natural drivers of employee productivity, communications, collaboration and supporting overall organizational effectiveness. Intranets are complex and expensive investments - their scope and reach should touch and positively affect all employees in every corner of an organization. The rigor and execution required to build and maintain a successful intranet is massive – from governance to content management, and from technology to business processes. At the heart of a successful intranet is the strength of the plan that underlies it. Indeed, for the majority of organizations, technology is not the biggest intranet challenge. Rather, the biggest challenge is politics – most specifically, the political challenge of who owns or should own and manage the intranet.

An effective intranet or enterprise portal serves the business needs of all users, not just the users in one area of the company. Therefore, the needs and requirements of each stakeholder and user are relevant and each needs to be engaged as part of the assessment process.

Ultimately, ILRINET's main objective MUST be inline with the organization's mission, vision and objectives, and that is, to improve people's lives in developing countries by alleviating poverty and increasing food security by improving agricultural livestock.

The most effective way ILRINET can help ILRI achieve this goal is by:

1. Creating a collaborative platform that allows researchers and scientists to share information, knowledge and expertise easily
2. Create an administrative platform that helps reduce organizational costs and overheads by reducing/eliminating bureaucracies through an efficient enterprise portal
3. Disseminate information to ILRI staff more effectively on the organization's productions, achievements and goals.

Undoubtedly ILRINET is one the best Intranets in the region. The reasons for its success are the dedication and passion shown by the Web Team, the tremendous support from senior management in the organization and the enthusiasm of ILRINET users.

This provides the ideal platform from which ILRINET can be transformed into an even more effective tool that will help in all three areas listed above and will ultimately have a bigger impact on the people the organization serves.

7.0 Appendices

The following documents are attached to this report

- Terms of Reference of the ILRINET Consultancy
- Brief Profile on the Web Team (team in charge of ILRINET)
- ILRINET review guideline
- Brief Introduction to Web 2.0 technologies
- Brief Analysis of Award Winning Intranets