



Candidate Brief

Informatician

May 2015



CABI BACKGROUND

CABI (www.cabi.org) is a not-for-profit development-led organization supported by a solid scientific research base and a world class publishing service. Our mission is to improve people's lives worldwide by providing information and applying scientific expertise to solve problems in agriculture and the environment. Our work increases food security and protects biodiversity.

We have over 500 staff based in 16 countries. We have offices in Brazil, China, Ghana, India, Kenya, Malaysia, Pakistan, Switzerland, Trinidad & Tobago, the UK and the USA.

CABI is an intergovernmental organization that can trace its origins back to 1910. Our mission and direction are influenced by government representatives from our 48 member countries who help guide the activities we undertake. These include scientific publishing, development projects and research, and microbial services. We are also leading a major new initiative, Plantwise, which aims to improve food security and the lives of the rural poor by reducing crop losses.

CABI's Knowledge Business

We produce key scientific publications for the global research community, including CAB Abstracts, the world-leading database covering agriculture and environment, and Global Health - the definitive bibliographic database for public health information. We also publish multimedia compendia, books, eBooks and full text electronic resources aiming to further science and its application to real life. Our Knowledge Business also supports our international development mission with the creation of innovative information solutions and appropriate technologies to transfer knowledge to farmers and extension workers. Behind each of our products is a team of subject specialists committed to delivering the most relevant and authoritative information to users worldwide.

Development projects and research

Our staff research and find solutions to agricultural and environmental problems. We use science, information and communication tools to help solve issues of global concern. Our work is arranged around four core themes:

- **Commodities** – we work to enable smallholder commodity farmers to compete in global markets. We diagnose and control plant pests and diseases, and help farmers get a better price for their crops. We work on crops such as coffee, cocoa, wheat, rice and cotton.
- **Invasive species** – we are helping to reduce the spread and impact of invasive weeds such as Japanese Knotweed, water hyacinth and insects such as coffee berry borer and cocoa pod borer. We also advise countries at a policy level about agriculture, trade and the environment.
- **Knowledge for development** – we work with farmers, extension workers, researchers and governments to deliver agricultural knowledge and develop communication strategies and systems.

Microbial services

We manage one of the world's largest genetic resource collections, the UK's National Collection of Fungus Cultures. We conduct microbiological identifications, provide cultures for sale, and offer preservation and consultancy services. We are also screening our collection, looking for natural products such as antibiotics, vitamins and enzymes.

Plantwise

Plantwise is a global programme, led by CABI, to increase food security and improve rural livelihoods by reducing crop losses. Sustainable networks of local plant clinics provide farmers with practical plant health advice, reinforced by the Plantwise Knowledge Bank, an online gateway to plant health information. Working in close partnership with relevant actors, Plantwise strengthens national plant health systems from within, enabling countries to provide farmers with the knowledge they need to lose less and feed more. www.plantwise.org



THE ROLE

Job title:	Informatician / Semantic Domain & Information Specialist
Salary range:	£35,000-£41,000
Grade:	HAY Band 6
Reporting to:	Head of Business Solutions
Direct reports:	none
Key peer group:	Thesaurus Manager, Database Production, Business Solutions Architect, Database Administrator Team Manager
Location:	Wallingford, UK

Purpose of the role

CABI has the largest agricultural, life sciences and related subject thesaurus in the world, known as the CAB Thesaurus (currently some 264,518 terms). This asset is key to the production of CABI's portfolio of publishing and knowledge products, as well as many projects and services that we deliver on the ground

This role provides the expertise to analyse, extract and model the semantic relationships of the subject domains that CABI operates within. The role is responsible for enabling the business to go beyond traditional abstracting and indexing (A&I) to capture and utilise the relationships contained and derived between and within content (and also associated metadata), thus allowing the development of the Knowledge Graph for Agriculture, Life Sciences and related subjects to enhance CABI's future products and services.

The role involves the generation of semantic models from initial workshop investigation with domain experts to ascertain the key relationships required capturing within each subject area, mapping and modelling these using industry standards, where appropriate. Once models established, managing the semantic domain models, would be a routine task for the role, along with the appropriate reviews of software, standards and techniques to achieve. In addition identify and utilise linked open data (LOD) techniques to develop the linkages of the CAB Thesaurus to other key resources.

This role will be working closely with the Database Production, IT Development and Content Development departments. Travel may be required both within UK and overseas to attend conferences and run meetings/workshops in CABI centres.

This role would suit a person who has a keen interest in semantics and the technology of the semantic web. This role will engage with both business and IT stakeholders providing detailed analysis and operation of semantic technologies and thesaurus software.



Key Accountabilities

- To develop the semantic capabilities of the business, through the use of Temis Luxid and other text analytic tools and data mining techniques.
- To model strategic relationships related to the subject domains CABI operates within and make sure that these are appropriately actioned for capture within database production workflows.
- To assist product development in the data/metadata framework of CABI products, projects and services to enable future user improvements to be developed.
- To feed into the strategic roadmap of the Semantic Architecture and Content Processing.
- To advocate the use of the CAB Thesaurus; controlled vocabularies and advanced information management techniques around the business.

PERSON SPECIFICATION

Qualifications

- Degree in information systems, biological sciences, computer science or a related field (or an equivalent combination of education and experience) with a proven track record of continuous skill development, or subsequent degrees (Desirable = advanced degree(s) in one or more of these areas)

Previous experience

- Experience in a similar role, preferably within a Publishing or other content/information/knowledge-enabled business;
- Experience of working with tools such as Temis Luxid, MultiTees or other thesaurus, text, language or semantic toolkits.
- Experience of Linked Open Data technologies, frameworks and languages.
- Desirable to have understanding of key statistical techniques and data model construction.
- Desirable to have an understanding and possible use of data mining, web scraping tools.
- Beneficial to have worked in an agile product development environment, as will be interacting with IT sprint cycles.

Personal characteristics

- Exceptional ability to communicate at all levels is essential;
- Must be able to motivate people and engage them in workshops
- Attention to detail
- Quick thinking and able to take a flexible approach
- Happy to travel as required, both within the UK and overseas to conferences and other CABI centres (e.g. Switzerland, India and Kenya).



EQUAL OPPORTUNITIES

CABI is an equal opportunities employer and welcomes applications from candidates irrespective of age, gender, race, colour, nationality, ethnic or national origin, disability, religion, sexual orientation or marital status. No applicant will be disadvantaged by conditions which cannot be shown to be justified and selection will be based on merit.

By taking the [CABI Equal Opportunities Survey](#) you will be helping us to follow best practice recommendations that employers should monitor selection decisions to assess whether equality of opportunity is being achieved. Please follow the link to take the survey.

(If the link does not work please cut and paste the following URL into your web browser http://www.surveymonkey.com/s/CABI_Equal_Opportunities_Survey)

The information in the survey will be treated as confidential and used for statistical purposes only, forming no part of the selection process. This information will be received separately from your application.

SECONDMENT

This role may be filled on secondment from the corporate sector or from other large international development organisations. To discuss a secondment opportunity, please contact Neil MacIntosh, HR Director, at n.macintosh@cabi.org

HOW TO APPLY

To apply please send a covering letter detailing how you meet the candidate profile and a full CV quoting Job Reference 43/2015 to recruitment@cabi.org Please state where you saw this advertisement.

Please note closing date for receipt of applications is midday BST, Monday 8 June 2015.