

Developer

Role brief

Directorate	Digital resources
Role	Developer
Base location	Bristol
Grade	Grade C – Level 15
Reports to	Technical project manager / team leader

1. Background

This is a post in the open access (OA) support group within the digital resources directorate.

Jisc has created this business unit to bring together into a single management framework all Jisc's digital resources related, strategy, services and operations. Its goal is to:

- Ensure that Jisc's digital resources capabilities and expertise are applied cost effectively and imaginatively to make a real difference to research and education in the UK on a sustained basis
- Lead, integrate and manage the performance of core digital resources expertise, infrastructure and services including Jisc Collections
- Within the emerging "open" context, ensure that Jisc delivers at the forefront of academic information resources, modern discovery and access

Examples of digital resources areas of focus include:

- Brokering access to publications, such as academic journals, to provide institutions with cost-effective subscriptions
- Providing advice, training in the use of technology to digitise collections and make them available to a wide constituency in new and accessible ways
- Assisting academics in the publication of their research by providing guidance through the maze of funder and publisher policies

The Jisc digital resources team will work together and will collaborate with colleagues across Jisc to:

- Ensure that Jisc becomes the world-leading exemplar in their field of expertise
- Set the agenda for change across Jisc's core digital resources expertise, infrastructure and services
- Strengthen Jisc's digital resources capability to support the digital futures pipeline
- Ensure Jisc contributes to and is suitably influential in UK and international information management, digital resources standards bodies and other important working groups
- Contribute to the wider Jisc strategy and articulate and embed a digital resources vision and a purpose for Jisc's role in the:
 - UK education and research sector
 - Wider international academic community
 - Other public sector organisations who may bring benefit to Jisc's aims and objectives

2. Purpose and scope of role

The developer will make a significant contribution to the design, development, implementation and support of Jisc scholarly communications services and projects. These services play a critical role in the move to open access for academic research publications, in line with UK government policy; as such they are high profile and very well used by academics and others in universities.

The work will take place in line with agreed service level agreements and operational/development plans, and in the context of a cross-service technical and data architecture incorporating scholarly communications, library shared services and resource discovery services.

The purpose of the role will be to develop and maintain Jisc's scholarly communication services with a particular focus on:

- Building applications in response to specific use cases within the context of an agreed architecture and development approach
- Ensuring that technical solutions adhere to best practice and are robust, extensible and standards compliant
- Providing support, advice and guidance to service users and to colleagues across Jisc as needed

The developer reports to the OA development team leader.

3. Key accountabilities and role outputs:

The specific responsibilities of the role are to:

- Participate in the development of technical solutions that meet the requirements of new and evolving services in the context of an agreed project or operational plan and any associated service level agreement
- Translate user requirements into technical specifications, test cases and subsequently into program code
- Participate in quality reviews and undertake testing as needed or directed
- Creation of technical and user documentation for both internal and external consumption
- Ensure that technical deliverables meet required quality standards and that program code is well-structured and commented in line with best practice
- Raise risks and issues as they arise using the defined processes
- Respond to customer support queries in a professional manner and ensure that they are concluded to the customer's satisfaction
- Contribute expertise to the work of colleagues to assist with the creation of high quality solutions
- Liaise with key stakeholders, including user representatives and Jisc partners, as needed to meet development objectives
- Recommend best practice in areas of technical specialism
- Contribute to the development of project plans by providing estimates
- Become familiar with relevant UK and international technical standards and ensure they are applied
- Provide reports or briefs to project manager on progress and other aspects of development work
- Monitor live services and respond appropriately to issues
- Adhere to the OA development team practices and use the defined and recommended tools

General responsibilities relevant to this role are:

- Discharge responsibilities with respect to health and safety
- Support a collaborative approach to project planning and development
- Bring to the attention of line management dependencies, concerns and issues which may impact on effective project or service delivery or Jisc reputation
- Contribute to the incremental development of a common Jisc service architecture
- Undertake investigations related to service developments as requested
- Provide expertise or leadership to projects as requested
- Propose service and infrastructure opportunities arising from expertise specialism
- Operate with a service and customer focussed ethos, taking responsibility for maximising customer satisfaction
- Where required or where the opportunity affords develop and maintain strong relationships with stakeholders, including partners, users, suppliers and funders and also within the community – nationally and internationally – that will enhance service delivery and build reputation and keep Jisc informed of developing trends. This includes specific consultation with external technical specialists about topics of relevance to Jisc services and projects
- Keep at the forefront of evolving technical and subject areas by seeking out appropriate training and group memberships
- Contribute to training and dissemination materials relating to scholarly communications services
- Contribute to the training, development, empowerment and motivation of colleagues in relevant areas of expertise

4. Skills, knowledge and experience

	Essential	Desirable
Qualifications	<ul style="list-style-type: none"> • First degree in computing or equivalent formal training • A proven track record of applications development 	
Experience	<ul style="list-style-type: none"> • Developing resilient, distributed or n-tier applications with substantial numbers of users • Building RESTful applications using PHP or Python, HTML5, JQuery and JavaScript, MySQL, ideally based on MVC application frameworks • Industry standard software development methodologies including testing and continuous integration deployment tools, source code 	<ul style="list-style-type: none"> • Working with third-parties, such as external software developers • Data analysis, database design from data modelling through to development and implementation • Database administration • Linux / Apache administration • Elastic Search

	<p>control, unit testing frameworks</p> <ul style="list-style-type: none"> • Working both in a team and independently using judgment and initiative • Providing applications or service support to end-users 	<ul style="list-style-type: none"> • Working with cloud-based infrastructure (especially AWS) • Working with a variety of stakeholders on development projects • Academic research / publishing
Knowledge	<ul style="list-style-type: none"> • Understanding of Human Computer Interface issues and usability of IT systems • Understanding of web-related protocols such as HTTP, SOAP, ATOM, SSL/SSH, FTP and TCP • Object oriented development using PHP or Python, HTML5, CSS, JQuery and JavaScript, JSON, XML (including schemas), MySQL • At least one application framework 	<ul style="list-style-type: none"> • Access management and securing web services communications with API keys and other security standards (SAML/Shibboleth) • Open access policies and business models of scholarly communication publishers • Scholarly communications and publishing • Open access repository developments • Copyright, intellectual property rights and rights management
Skills	<ul style="list-style-type: none"> • LAMP stack - Linux, Apache, MySQL, Perl/PHP/Python • RESTful web services, JavaScript & the jQuery framework, AJAX, DOM, CSS 2/3, HTML 4/5, JSON, XML • At least one of the following object orientated programming languages: Python, PHP, Java • Excellent communication skills • Ability to write concise and effective material to suit different purposes - technical documentation; blog posts; support materials • Analysis and problem solving • Collaboration and team 	<ul style="list-style-type: none"> • Data analysis / data modelling • Presentation skills, speaking to specialist or general audiences • GitHub • Jenkins

	working	
Other	<ul style="list-style-type: none"> • Ability and willingness to quickly learn new skills on the job • Flexible, motivated self-starter, able to initiate and take responsibility for tasks in pursuit of wider goals • Supportive team player • Attention to detail and adherence to standards • Willingness to engage with the user community • Willingness to travel with overnight stays where needed 	

5. Key contacts:

- Open access development team leader
- Lead developer
- Managers across the organisation
- Customers/users of Jisc services
- Jisc partners and collaborators

Important additional information

The open access development team leader will discuss all elements of the role brief with the appointee on appointment and after six months, recognising that some elements may need changing.

The above is provided for guidance, is not contractual, and is not an exhaustive list of all accountabilities that the post-holder may have.