Software Evaluation and Selection

**Identification of Candidate Software**

The three most heavily used open source software applications in the field of information management as per the Registry of Open Access Repositories (ROAR 2016), namely E-Prints, Fedora and D-Space were selected as the candidate tools for developing the platform.

1. **DSpace:** DSpace software was jointly developed by Hewlett Packard (HP) Labs, and The Massachusetts Institute of Technology (MIT), USA in 2002 as an open source software to manage research, scholarly, and other published content in a digital repository, focusing on long-term storage, access, and preservation.
2. **E-Prints:** E-Prints software was developed by the   School of Electronics and Computer Science, University of Southampton, USA. It is a leading open-source application for developing digital research repositories.
3. **Fedora:** Fedora software was jointly developed by Cornell University and the University of Virginia Library, USA. This is also an open source repository system for the management and dissemination of the digital content.

**Evaluation and Selection**

Each of the three candidate software packages were locally installed and further evaluated based on a detailed set of evaluation criteria developed by Bankier and Gleason (2014) as given in table 1.

Table 1: Check List for Evaluation of the Software

|  |  |  |  |
| --- | --- | --- | --- |
| **Infrastructure** |  |  |  |
|  | **DSpace** | **E-Prints** | **Fedora** |
| Locally Installed Software Solution | Yes | Yes | Yes |
| Community Support | Yes | Yes | Yes |
| Flexible Repository Structure | Yes | Limited | Limited |
| Customized Metadata | Yes | Yes | Yes |
| Current Version | 6.3 Ver. | 3.4 Ver. | 3.0 Ver. |
| Administrator Configurations | Yes | Yes | Yes |
| Supports Standard User Roles | Yes | Yes | Yes |
| **Front-end Design** |  |  |  |
|  | **DSpace** | **E-Prints** | **Fedora** |
| Integrated front-end Design | Yes | Yes | No |
| Customizable Repository Design | Yes | Yes | Yes |
| **Content Organization** |  |  |  |
|  | **DSpace** | **E-Prints** | **Fedora** |
| Access Controls | Yes  | Yes | Customize |
| Community Publication | Yes | No | No |
| Supports Standard File Types | Yes | Yes | Yes |
| Customizable Metadata | Yes | Yes | Yes |
| Creative Commons License | Yes | Yes | Yes |
| **Content Discovery**  |  |  |  |
|  | **DSpace** | **E-Prints** | **Fedora** |
| Integrated Search Engine | Yes | Yes | Yes |
| Advanced Search with Facets | Yes | No | No |
| Browse Options | Yes | Yes, but limited | Yes, but limited |
| Graphical Navigation of Content | Yes | Image only | No |
| Search Engine Optimization | Yes | Yes | No |
| Indexed in Google Scholar | Yes | Yes | No |
| DOI and Persistent URLs | Yes | Yes | Yes |
| Citation Export | Yes | Yes | Yes |
| **Reporting** |  |  |  |
|  | **DSpace** | **E-Prints** | **Fedora** |
| Usage/Download Reports | Yes | Add on service | Add on service |
| Google Analytics Integration | Add on service | Yes | No |
| **Multimedia** |  |  |  |
|  | **DSpace** | **E-Prints** | **Fedora** |
| Streaming Multimedia | Add on service | No | Add on service |
| Images | Yes | Yes | Yes |
| Slideshows | Add on service | Yes | Add on service |
| Audio | Yes | Yes | Yes |
| Video | Yes | Yes | Yes |
| **Social Feature** |  |  |  |
|  | **DSpace** | **E-Prints** | **Fedora** |
| RSS | Yes | Yes | Yes |
| Book Mark | No | Yes | No |
| Share | Add on service | Add on service | Add on service |
| Saved Searches | Yes | Yes | No |
| **Interoperability** |  |  |  |
|  | **DSpace** | **E-Prints** | **Fedora** |
| Harvesting (OAI-PMH) | Yes | Yes | Yes |
| Integration with Discovery Platforms | Yes | Yes | Yes |
| **Authentication** |  |  |  |
|  | **DSpace** | **E-Prints** | **Fedora** |
| LDAP | Yes | Yes | Yes |
| CAS | Yes | Yes | Yes |
| System Accounts | Yes | Yes | Yes |
| Shibboleth | Yes | Yes | Yes |
| **Preservation** |  |  |  |
|  | **DSpace** | **E-Prints** | **Fedora** |
| Content Back Up | Archival Information Packages back up | XML export | Yes |
| LOCKSS-compliant | Add on service | No | Add on service |

More ‘yes’ , were obtained for DSpace software. Hence, it was selected for developing the database. The DSpace has a strong developer community and the source code is getting reviewed and updated on a regular basis.