Connecting the pieces: Using ORCIDs to improve research impact and repositories
Mohamed Ba-Essa, Daryl Grenz, Thibaut Lery and J. K. Vijayakumar
Agenda

- About King Abdullah University of Science and Technology (KAUST)
- Establishment phases of KAUST Research Repository
- Development of repository policies
- Repository integration with external systems
- Research evaluation workflow
- Community engagement: role of the university library
- Next steps
Our intention is to create an enduring model for advanced education and scientific research.
From planning to execution
December 2010, first commencement ceremony

Where is their work???
Share Point to manage research output

Documents

- Baossa_test

Lists

- Calendar

Discussions

- Team Discussion

Sites

People and Groups

- Recycle Bin
- All Site Content

Shared Documents

- Mazen Merou - PSE (ErSE - Earth Science and Engineering)
- Karen McElwee - PSE (MSE - Materials Science and Eng)
- Antonia Forshaw - PSE (Electrical Eng)
- Ann and Leigh Kilpert - CLSE (Bioscience, CBE, Chemical Sc, EnSE and Marine Science)
- Aida Hoteit - AMCS (Applied Math, Computer Science)
- Rasha M Elkhobarody - PSE (Mechanical Eng - ME)
- Naseer Alijaz - AMCS (Applied Math, Computer Science)

(More Documents...)

Add document
Why establishing Research Repository

- **Persistent access to university intellectual assets**, including grey literature (e.g., technical reports, conference papers, theses etc.) and research data, in order to preserve and share scientific knowledge created at KAUST.

- **Showcase the intellectual output of KAUST research**, development of international research networks and collaborations, support graduate student and post-doc recruitment.

- **Expanding impact of KAUST research**, which contributes to increased awareness of and growing prestige for our new and ambitious university.
Moving to Dark Repository
KAUST Dissertation and Thesis Archiving Policy

As a condition of matriculation, KAUST requires that doctoral students submit an electronic copy of their dissertation to the KAUST Library for inclusion in the KAUST digital archive. Similarly, masters students whose program requires a thesis must deposit it in the KAUST digital archive.

KAUST makes no claim of ownership of student dissertations or theses; however, the university retains a non-exclusive license to make copies of dissertations or theses as needed for the academic or archival purposes of the institution. This includes providing open access to the work on the Internet. If necessary to protect legitimate proprietary interests (such as patent rights), students may opt to delay temporarily the public display of their dissertation or thesis.
Repository unique material citation

Number of Citation

<table>
<thead>
<tr>
<th>Item Type</th>
<th>Number of Citation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conference Papers</td>
<td>10</td>
</tr>
<tr>
<td>Dissertations</td>
<td>5</td>
</tr>
<tr>
<td>Patent</td>
<td>2</td>
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<tr>
<td>Presentation</td>
<td>1</td>
</tr>
<tr>
<td>Technical Report</td>
<td>8</td>
</tr>
<tr>
<td>Thesis</td>
<td>25</td>
</tr>
</tbody>
</table>
KAUST Publication

Number of Publications

Year

SciVal

4,931 (5,532 in total between 2009 and 2015)

number of publications by authors at the King Abdullah University of Science and Technology

View list of publications
KAUST Open Access policy

Effective Date: June 30, 2014

1. Purpose
This policy is intended to give the University a means through which it can make published, scholarly pieces authored by the University's researchers available publicly, to the extent appropriate. The purpose of the public archive is to disseminate widely the results of research conducted by the faculty and other University researchers.

2. Scope
This policy applies to all University faculty, research scientists, post-doctoral fellows, students and employees who author or co-author published, scholarly articles while working at or employed in the University.

3. Policy
University faculty members, research scientists, post-doctoral fellows, students and employees ("University Research Authors") grant to the University an irrevocable, nonexclusive, worldwide license to exercise any and all rights under copyright relating to each of his or her scholarly research articles, in any medium, provided that the articles are not sold for profit, and to authorize others to do the same.

The Office of the Vice President for Academic Affairs will designate necessarily application of the license for a particular article or other access for a specified period of time upon express direction by the author.

Each faculty member or researcher will provide an electronic copy of the author's final version of each article no later than the date of its publication and any changes in accordance with the guidelines published from time to time by the Office of the Vice President for Academic Affairs.

The Office of the Vice President for Academic Affairs charges the KAUST Library to develop and maintain a plan to comply with this policy and existing copyright obligations in a manner as convenient to the faculty as possible.

The Office of the Vice President for Academic Affairs will issue a policy to the Academic Council from time to time.

The KAUST Library will review this policy after three years.

Approved by:
Professor Jean-Lou Chameau
President
Developing Open Access tools

- **Cover sheet**, to provide accuracy in citation, clarity about manuscript versions and licenses, and links to the publisher and the repository.

- **Author addendum**, each university research author is advised to append the KAUST addendum when signing the publication agreement with the publisher.

- **Waiver form**, the university will grant a waiver for open access, upon author request, but author still needs to submit to the repository.

- **Submission methods**
  - Online Submission
  - Email submission
  - Auto harvesting
Repository Content

KAUST digital archive

KAUST faculty and researcher works

Library Staff works

KAUST student theses and dissertations

Academic Divisions

Research Centers

Labs

Search engines (e.g., Google)

KAUST Library catalog

Metadata harvesters

Data/text mining

Library services
- Preservation
- Organization
- Metadata/Discovery
- Access management
- Rights management
- Backup & recovery

Graduate Program Coordinators

Restricted Access
- Release date
- User type
Repository integration with external systems
Daryl Grenz
ORCID IDs within the repository

• Added along within contributor names in submission forms or through metadata update.

• Retrieval via Crossref when available along with other metadata (based on DOI).
  ▪ Additional option: search and retrieval via the ORCID public API.
ORCID IDs within the repository

- Linked display on item pages and in author browse lists:

<table>
<thead>
<tr>
<th>AUTHORS:</th>
<th>ADVISORS:</th>
<th>COMMITTEE MEMBER:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Melino, Gianluca (0000-0001-8060-651X)</td>
<td>Di Fabrizio, Enzo (0000-0001-5886-4678)</td>
<td>Alshareef, Husam N. (0000-0001-5029-2142) ; Falqui, Andrea (0000-0002-1476-7742)</td>
</tr>
</tbody>
</table>

- Currently 59% of articles and conference papers in the repository have an ORCID for at least one author.
Using the ORCID member API

• Internally developed integration using PHP and MySQL.

• Goal:
  ▪ Provide a simple method for KAUST researchers to create an ORCID ID and populate their ORCID profile with affiliation and work information.

• Process:
  ▪ Emails with custom link requesting ORCID creation or identification. Follow-up emails to those who did not create an ORCID.
Using the ORCID member API

• Results:
  ▪ 82% of faculty, 52% of postdocs and 13% of research scientists now have ORCID IDs.
  ▪ 78% of those with ORCID IDs have granted permissions to KAUST to add information to their ORCID profile.

• Next steps:
  ▪ Initiate the same process for current students.
  ▪ Develop procedure for incoming faculty and students.
Inclusion of sources of research usage metrics

• Repository usage statistics derived from Google Analytics.

![Collection Statistics for Articles](chart.png)

- **Total Visits (All Time):**
  - Articles: 701
  - All Items: 9368
  - All Downloads: 22081

- **Total Visits per Month (Last Six Months):**
  - Collection:
    - December 2014: 61
    - January 2015: 192
    - February 2015: 32
    - March 2015: 62
    - April 2015: 21
    - May 2015: 36
  - Items:
    - December 2014: 610
    - January 2015: 736
    - February 2015: 761
    - March 2015: 874
    - April 2015: 935
    - May 2015: 305
  - Downloads:
    - December 2014: 1251
    - January 2015: 1421
    - February 2015: 961
    - March 2015: 1039
    - April 2015: 1133
    - May 2015: 462

![Top Item Views (All Time)](chart.png)

- **Views:**
  - Area Green Efficiency (AGE) of Two Tier Heterogeneous Cellular Networks: 162

![Top File Downloads (All Time)](chart.png)

- **Views:**
  - (On the Sum of Gamma Random Variables With Application to the Performance of Maximal Ratio Combining over Nakagami-m) paper_conf.pdf: 869
Inclusion of sources of research usage metrics

• Scopus citation counts
  
  This item has been cited 12 time(s). (data provided by Scopus)

• Altmetric.com donut badge for individual items.
  
  Scopus (12)
Inclusion of sources of research usage metrics

- Subscription to PlumX.

**Artifacts Summary:**
- Code: 53
- Article: 42
- Conference Paper: 6
- Video: 6
- Paper: 4
- Figure: 2
- Media: 1
- Report: 1
- Book: 1

**Usage**
- Clicks: 1
- Abstract Views: 128
- HTML Views: 3707
- PDF Views: 1136

**Captures**
- Exports-Saves: 13
- Readers: 11

**Social Media**
- Tweets: 24

**Citations**
- CrossRef: 3
- PubMed: 1
- Scopus: 1

[see details]
Research Evaluation Workflow
Thibaut Lery
Research Evaluation Workflow

- **STRATEGIC PLANNING**
  - Science Advisory Board
  - Process and Standards

- **EVALUATION**
  - Research Center Evaluations
  - Program Evaluations
  - Process & Standards

- **DATA MANAGEMENT**
  - Research Data Management with an institutional CRIS
  - Research Infrastructures
  - Data Monitoring

- **RESEARCH DATA REPORTING**
  - Data Analysis
  - Bibliometrics tools
  - Forecasting

- **VPR & Presidency**

Flow:
- To adjust
- To monitor
- To assess
- To present
Importance of collaborations in KAUST publications: comparison with key international universities

Scival data
2014
Influence of the type of collaboration on citations

Analysis of the number of citations per publication for various collaboration types for 86 Institutions that had significant collaborations (generating 10 publications or more) with KAUST researchers
2 key bibliometrics indicators

- **Publications in Top Journal Percentiles**
  - Share of publications that are in the top 10% most cited journals

- **Field-Weighted Citation Impact**
  - The ratio of citations received relative to the expected world average for the subject field, publication type and publication year.
  - Indicator used to balance citation differences between scientific fields
  - Index of 1.0 = “World average”
  - Index of 1.5 = 50% more than the World average
  - Index of 2.0 = 100% more than the World average
Field-Weighted Citation Impact
(Scopus data from 2011 to 2014, excluding self-citations)

Energy

- CALTECH
- KAUST
- MIT
- HKUST
- ETH ZURICH
- GEORGIA TECH
- CAMBRIDGE

Material sciences

- CALTECH
- MIT
- KAUST
- GEORGIA TECH
- ETH ZURICH
- CAMBRIDGE
- HKUST
Benchmarking against other Universities outside the Kingdom

Based on Scopus data between 2011 and 2013 (excluding self-citations)
Benchmarking against other Universities
Which group is KAUST belonging to?

Based on Scopus data between 2011 and 2013 (excluding self-citations)
Community engagement: role of the university library

J. K. Vijayakumar
• Value of using citation databases in the literature search
• Understanding citation metrics and tools (h-Index, Impact Factor, Altmetrics etc.)
• Role of publications in effecting institutional rankings
• Understanding researcher profiling (ORCID, Google Scholar etc.)
• Benefits of open access and explanation of how to use the institutional repository
• Academic honesty, plagiarism, and the use of similarity checking tools
Benefits to Researchers

• Improves their understanding of how to communicate their research
• Helps to have organized scholarly profile and presence
• Guides to navigate in the complex aspects of the changing scholarly communications landscape
• Helps in connecting the pieces of the research life cycle

Institutional Benefits

• Enhancing the profile of individual researchers will improve their research impact and the reputation of our institution,
• Helps in research funding, faculty evaluations and recruitment.
Middle East Outreach

Promoting open access and research service initiatives

Aimed at professional librarians and the academic community

Special Library Association Arab Gulf Chapter conferences in 2013 and 2014

American Library Association’s Sharjah Book Fair conference in 2014 and proposed for 2015.
Future

• More training programs within the university.
• More outreach programs in the region.
• Promote good practices in Research Data Management (RDM).
• Services and initiatives around RDM.
• Increased importance of Reputation Management
• Evolving scholarly record – transition from an article to a package (of article and associated video, data, software methods, other media etc)