ePosters Replace Print Posters: KAUST Library Initiative to Better Prepare Students and Preserve Scholarly Resources

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Academic Divisions

- Biological and Environmental Science and Engineering (BESE)
- Computer, Electrical and Mathematical Science and Engineering (CEMSE)
- Physical Science and Engineering (PSE)

Sustained Resources

CORE LABS
- Analytical Chemistry
- Biosciences
- Coastal & Marine Resources
- Greenhouse
- Imaging & Characterization
- Nanofabrication
- Supercomputing
- Visualization
- Central Workshops

Research Centers

- BESE
  - Desert Agriculture
  - Water Desalination and Reuse
  - Advanced Membranes
- CEMSE
  - Computational Bioscience
  - Extreme Computing
  - Clean Combustion
- PSE
  - Visual Computing
  - Catalysis
  - Solar
  - Upstream Petroleum

- Innovation & economic development for public benefit
- Entrepreneurship
- Technology transfer
- Industry engagement
- Venture funds
- Research & technology park
- Grow new companies
University Library

- Born digital (98% of collection is online)
- Open 24x7 with inspiring space and highly specialized collection
- First Open Access mandate in the Middle East
- Best Library Architecture award from AIAA / ALA in 2011
- Successful research repository supported by policies and tools
- Direct relations and negotiations with publishers and vendors
- Great involvement of staff in regional and international professional forums with focus on professional development
- Highest level of community satisfaction and engagements
Library Service Role @ KAUST

Information Resources
- Focused Collection
- 98% Collection in electronic
- Trainings & Liaison
- Document Delivery

Preservation & Curation
- Research Repository
- Open Access
- Research Data Management
- Records Management & Archives

Collaborative Space
- Learning Space
- Quiet Areas
- Academic & Social Events
- Technology

King Abdullah University of Science and Technology
KAUST Library ePoster service project
back ground

**WHY**

• We offer **Space as a Service** – Apx 12 scientific posters sessions are held in the library annually.

• We provide **Preservation and Curation** – hard to get hold of posters after the sessions.

• Many scientific organizations’ were moved to ePosters. There was a need to **upskill our Students and prepare them** for eposter creation and sessions.

**HOW**

• In 2017 Library initiated discussions with stake holders and proposed ePoster project.

• Trialed commercially available system with graduate students and post docs. A list of criteria was prepared, and asked companies to respond.

• Shortlisted companies provided trials and webinar information. Visits to headquarters/conferences. Suitable system was selected and in parallel, and with KAUST IT support, suitable display touchscreens were sourced, along with display stands for the pilot projects (Jan 2018).

• By mid 2018, after successful many pilots sessions and incorporating feedbacks, final service (**KAUST Library ePoster Service**) is approved.
THE DIGITAL TRANSFORMATION
in poster sessions
Library initiative to better prepare students and preserve scholarly resources

Touch screen 65” Model: RP653K 450nits, 3840x2160 UHD, BenQ unique ID, IR 10 points touch, 20W*2 built-in SPK, EZWrite4.0Ltie APP, Android 5.0 embedded

PC: OPS PC i7, 8GB, 500GB (4K Graphics Card)

Display stand: Custom floor stands with landscape & Portrait orientation

ePosterslive contract charge for 10 events

Enhanced video/audio availability option

Additional equipment (cables, router, backup laptops, spare slot-in PC)

Identified customization (automated repository upload, local KAUST server implementation, synchronization, knowledge transfer and training)
Advantages

Change/Update: YES

Longevity/Preservation: YES

Ease of Transport: YES

Environmentally friendly: YES

Multi device accessible: YES

Widespread distribution: YES

Multimedia/ hyperlinks available: YES

Zoom functionality: YES

Best utilization of space: YES

Statistics and Reporting: YES

Additional modules (e.g. review): YES
## Beneficiaries

<table>
<thead>
<tr>
<th>Feature</th>
<th>Student</th>
<th>Preservation Efforts</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Change/Update</td>
<td>X</td>
<td></td>
<td></td>
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<tr>
<td>Longevity/Preservation</td>
<td>X</td>
<td>X</td>
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<tr>
<td>Ease of Transport</td>
<td>X</td>
<td></td>
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</tr>
<tr>
<td>Environmentally friendly</td>
<td></td>
<td></td>
<td>All</td>
</tr>
<tr>
<td>Multi device accessible</td>
<td>X</td>
<td></td>
<td>Participants</td>
</tr>
<tr>
<td>Widespread distribution</td>
<td>X</td>
<td>X</td>
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<tr>
<td>Multimedia/hyperlinks</td>
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<td></td>
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<tr>
<td>Zoom functionality</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Space Utilization</td>
<td></td>
<td></td>
<td>Organizer</td>
</tr>
<tr>
<td>Statistics and Reporting</td>
<td>X</td>
<td></td>
<td>Organizer/Library</td>
</tr>
<tr>
<td>Additional Modules</td>
<td></td>
<td></td>
<td>Organizer/Judges</td>
</tr>
</tbody>
</table>

- All: All participants
- Participants: Targeted participants
- Organizer: Organizer role
- Organizer/Library: Organizer or Library role
- Organizer/Judges: Organizer or Judges role
Disadvantages/ Challenges

• **Initial setup is reasonably complex process**, especially if you are in Saudi Arabia. For example, as backup we’re currently working on a virtual server to ensure local access if Internet outage occurs.

• **Cost**: we chose touch screens but it is possible to use LED screens. These sacrifice zoom functionality and more closely resembles the situation with print but are much cheaper to implement.

• Dealing with **change management** in academia!!!!
Critical Success Factors

65 inch screen is larger than A0 poster
Critical Success Factors

- A0 size needs to be met or exceeded
- 4K display capability critical
- Internet reliability and back up options (i.e. virtual server)
- Committed and responsive vendor – ePosterslive
- Address local requirements – “split screen” development
IMPACT

Library
- Support the popularity of scientific posters at KAUST
- Ensure comprehensiveness of repository content
- Provide space and encourage partnerships supporting research
- Opportunities - training and integration with curriculum

Student Success
- Prepare students for professional organizations use of ePosters
- Promote ORCID iD
- Enable citation via persistent URL
- Share research efficiently (including via social media)

Preservation
- Need to systematically preserve posters in repository
- Improve discoverability
- Retain KAUST intellectual efforts
- Increase Open Access
Reactions

"To be candid, we are thrilled with the opportunity to use the E-poster system. The technology is one thing. The web archive is perhaps even more significant for the mainly young or remote authors at our meeting. Posters are not "second place" entries here. One could even argue that they have a better archival life and better production value than the talks."

David Keyes
Director Extreme Computing Research Center, AAAS Fellow
Senior Associate to the President

“This collaboration will be ongoing in alignment with KAUST’s Library’s goals in relation to the evolution of the scholarly record and “patrons as creators”. Our partnership represents an excellent use of both physical and human resources at KAUST, enhancing the professional development of KAUST students who are fortunate to have this tremendous resource available to them”.

Kathleen M. Emmenecker
Manager for English Programs
Lessons Learned

- Convenience over Quality – solved by making ePosters convenient!
- Investment in touchscreens is worth it – old screens are used as digital signage
- Vendor commitment and responsiveness is paramount
- The service expands library involvement beyond the building
- Good internal IT support is required
- Involve stakeholders! From as early as possible (e.g. student assessment of various systems in order to get shortlist)
- Look at what is already done – portrait/landscape was a potentially big issue, with A0 portrait the default; changing this has been a challenge.
Lessons Learned

- Change is hard in academia – be prepared for this. We commissioned ‘split screens’ to create a “1-1” experience analogous to printed posters where the number of presenters exceeded our number of screens.

- As service providers, the Library has to adapt rather than expect the organizers or users to do so.

- Go **Big** (A0 equivalent was the KAUST standard, so 65” was required to meet user expectations; 55” wasn’t acceptable).

- Go **High Quality (4K)** to compete with quality of printed equivalent.

- Need ‘lock down’ software (Kioware) to avoid users playing with the screens!

- If possible, do not introduce charges until the service has been accepted.

- Have your own supply of spare parts in order to deal with hardware outages, display stand wheels, power boards etc. This is particularly important when you are at the limit of your available screens.
Lessons Learned

• Screen rental could be an option in large cities.

• It's been challenging getting sufficient notice to utilize the system fully. Hopefully as awareness increases and understanding of the efficiencies gained, we will have more fully optimized events.

• Work with stakeholders who are supportive of the approach e.g. at KAUST we work with our Office of Sponsored Research, who also offered funding should this have been required.

• Encouraging participants to use high resolution images can have repercussion for file size, which directly affects the time taken to load a poster.

• Unwillingness to trial alternative models in use at many international conferences e.g. multiple posters on one ‘themed’ screen.
Challenges and the Future

- Embarking on this or similar projects; a major challenge is managing change in academia.
- Enhancements available (e.g. password access) and need to be managed and implemented.
- Market and promote relevant eposter modules or apps e.g. review, reporting/voting
- Remain focused and responsive to user requests (e.g. split screen)
- Seek opportunities linked to student success (e.g. 3D scanning).
Challenges and the Future

• Administrative change needed from organizers e.g. better planning, reducing the ‘just in time’ approach.

• Optimize engagement dynamics through different models e.g. themed screens.

• Technological advances to improve results and/or manage costs

• Managing service issues – extended hours for staff, spare parts, expanding skill set to support the technology and events.

• Promote content through Open Access.
Thank you