## Page Turners - Current, Future and Requirements

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<th>Current Image Presentation Solutions (with links if available)</th>
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| University of York | **Single Images**  
Seadragon (eg. [https://dlib.york.ac.uk/yodl/app/image/detail?id=york:799266](https://dlib.york.ac.uk/yodl/app/image/detail?id=york:799266))  
or OpenSeadragon (eg. [http://artcollection.york.ac.uk/artcollection/artwork.jsp?id=york:806967](http://artcollection.york.ac.uk/artcollection/artwork.jsp?id=york:806967))  
**Multiple pages**  
Basic paging in jsp with links through to deepzoom: [http://hoaportal.york.ac.uk/hoaportal/ettySketchbook._488.jsp](http://hoaportal.york.ac.uk/hoaportal/ettySketchbook._488.jsp)  
**Image Streaming**  
Streaming uses IIP Image. | **Single Images**  
OpenSeadragon  
**Multiple Pages**  
Likely different solutions in different places, open seadragon can deal with collections and this may suffice in our Digital Library. Welcome player is a possibility as it would create a uniform experience across different media. Mirador perhaps for specialist MSS collections.  
**Streaming**  
Upgrade to IIIF compliant version of IIP Image | In brief:  
sequences of regular size/shape left and right pages  
sequences of irregular sized images  
manuscripts with foldouts and inserts  
pages with transcripts and translations, to be shown overlaid or side-by-side |
| University of Durham | 1. Based on METS Navigator and Fedora. At Fedora ingest a METS file is also generated for the images and description. Uses Fedora Content Models to create various behaviours to display images and description.  
**Standard book page turner**  
**Multiple views of item and parts**  
Pulls together images of a charter and seals with descriptions sourced via Saxon from EAD also stored in Fedora. Images are just jpgs.  
**Single page**  
Single item (map) image via ERDAS's image web server and description pulled from MARC record in Millenium  
http://endure.dur.ac.uk:8080/fedora/objects/UkDhU.13dd2a65-22fc-418c-9dcd-5d6e79ba6808/methods/UkDhU:ECWViewer_SDef/getECWviewer  
2. Based on Internet Archive reader - allows searchable text layer as well as page image. Works in XTF which we already use for our EAD archive catalogues.  
http://reed.dur.ac.uk/xtf/view?docId=bookreader/SurteesSociety/131pt2/sus131METS.xml&page/1/mode/2up | I have a local installation of IIIF IIPImage running and am waiting for server installation, with the intention of moving all image serving to JPEG2000.  
Have used the M2 new Mirador viewer with book manuscripts - with IIIF there can be a choice of which viewer to use (will be looking at geo-referencable map viewers as well as page turners).  
I would hope to automate as much as possible the creation of the page structure metadata (json? METS ? - I'm not convinced this can be done or maintained in RDF) at the ingest into Hydra/Fedora stage, although looking at the table of contents section of IIIF json this looks like it will need some editing too.  
Would like a text search layer (indexing to solr in Hydra?) over page images like that in IA reader.  
How would we keep the description of the image up to date?  
Cascade updating of descriptions, or live display by sourcing the description from the catalogue each time the images are viewed? | |
| Cornell University | Internet Archive Reader used with Hydra installation: [http://seasivisions.library.cornell.edu/](http://seasivisions.library.cornell.edu/)  
We converted our Southeast Asia Visions collection from using the University of Michigan's DLXS platform. This collection has many images of different heights and widths, so we had to add the image dimensions to the bookreader config for each book. Even after doing so, we still have problems with multi-page views. | We are planning on converting many of our collections (see: [http://ebooks.library.cornell.edu](http://ebooks.library.cornell.edu)) into Hydra. We would like a better page turner for these collections. Currently we are working several of our law library collections: The Donovan Nuremberg Trial Collection ([http://ebooks.library.cornell.edu/n/nur/](http://ebooks.library.cornell.edu/n/nur/)), the Scottsboro Trials Collection ([http://ebooks.library.cornell.edu/s/scott](http://ebooks.library.cornell.edu/s/scott)) and the Trials Pamphlets Collection ([http://ebooks.library.cornell.edu/t/trial](http://ebooks.library.cornell.edu/t/trial)) and Liberian Law ([http://ebooks.library.cornell.edu/l/liberian](http://ebooks.library.cornell.edu/l/liberian)) which are all currently in DLXS. | Our requirements are similar to the University of York's requirements. |
| Duke University | We have a homegrown Django application powering <http://library.duke.edu/digitalcollections/>, Item data (image files, etc.) represented in METS. Paginated documents use an additional JSON file (generated via python script) indicating page and image tile info, rendered via Diva.JS.  
**Single Images**  
[http://library.duke.edu/digitalcollections/sizes/dsp_dspfb15395/](http://library.duke.edu/digitalcollections/sizes/dsp_dspfb15395/),  
Query Panzoom (<https://github.com/timmywil/query.panzoom/>) + really large JPG files (no image server)  
**Multi-page Documents**  
[http://library.duke.edu/digitalcollections/rubenstein_hdims01001/](http://library.duke.edu/digitalcollections/rubenstein_hdims01001/),  
[http://library.duke.edu/digitalcollections/earlymss_emsgk01020/](http://library.duke.edu/digitalcollections/earlymss_emsgk01020/)  
We're in the very early stages of migrating digitized collections from li-brary.duke.edu/digitalcollections/ to Hydra, so a lot is presently unclear. A rough sketch related to image viewing / page turning:  
Decide on derivative format (Pyramid TIFF vs. JPEG2000); see how Hydra framework accommodates auto-generation of derived files & page data (dimensions, files, tile info, etc.) upon upload or other processes.  
Choose a single-image viewer tool. Develop UI for item view. Evaluate Diva.js among other tools for multi-page navigation. Develop UI.  
We’d love to use IIIF-compatible tools to maximize our flexibility; that would also be beneficial if we end up with, e.g., different viewer tools for single and multi-page items that use a common image server. |
| University of Hull | We have no production solution. I did some work a year or so ago as "proof of concept" with the basic Internet Archive tool which takes sequential page images from a single, multi-datastream Hydra object. It works fine, but would need a good deal of refinement to put into production - unfortunately (for this group) it is behind Hull's firewall (mainly for copyright reasons).  
**Multi-page Documents**  
[http://library.duke.edu/digitalcollections/rubenstein_hdims01001/](http://library.duke.edu/digitalcollections/rubenstein_hdims01001/),  
[http://library.duke.edu/digitalcollections/earlymss_emsgk01020/](http://library.duke.edu/digitalcollections/earlymss_emsgk01020/)  
We need a page turner. We have a number of major items in our Archives that we want to get into the public domain this calendar year if possible. We put everything on hold when the IIIF-compatible idea came up and that's what we now hope to pursue. Obviously, the idea of a community-supported solution has much to recommend it. At the moment we have very little in place (beyond the already-scanned material) and so we're open to ideas. That said, we're a small shop and we don't want to have to adopt a heavyweight stack for this.  
There is an attraction to adopting a solution that delivers page turning and single images using the same tool; end users only need to learn one interface. Tufts did this two or three years ago (though not with technology I'd now want to use) and I've always liked the idea since.  
Nothing that isn't already listed above - except the ability to cope with single images neatly too. |
| Boston Public Library | For all images except thumbnails, we use the IIIF-compliant Loris image server to serve JPEG tiles for JPEG2000 image assets.  
**Single image**  
(basic Openseadragon viewer, click on the image to launch the viewer): <https://www.digitalcommonwealth.org/search/commonwealth:6682xc72w>  
**Multi-page documents** (uses WDL-Viewer page turner, which has been hacked a bit to use IIIF image server as the image source.) <https://www.digitalcommonwealth.org/book_viewer/commonwealth:mk61rh94q>  
No immediate plans to change our current implementation, but would like a page turner that provides (a) better in-book navigation for TOC, chapters, etc. and (b) full-text searching. We don't have much book-type content in our repository yet, but will have a significant amount when we start pulling things in that are currently hosted at Internet Archive.  
Would like to serve IIIF Presentation API JSON from our repository back-end application to facilitate page-turner implementation.  
Pan, zoom, nav a pg thumb grid; jump to page; Show transcript simul.; show original arrangement of pgs facing each other; OCR for discovery / show location of matched term; Export/download JPG or PDF of pg/range of pgs Swipe/gesture nav for tablet/mobile |