ProQuest Historical Newspapers: Page-level and Article-level Compared

Background

When the ProQuest Historical Newspapers program was launched, all newspapers were digitized at the article-level. This means that every page of newspaper content was "zoned" into its distinct articles and other component parts (editorials, advertisements, cartoons, etc.), and each of those component parts was then run through OCR and treated as an individual entity in the database. Beginning in 2016, some historical newspaper titles in the ProQuest Historical Newspapers program were digitized at the page-level. This means that the full- page image is run through OCR, and the full page of content is stored in its entirety in the database. This document examines the differences between article-level and page-level digitization in searching, search results, and content display.

Article-level Zoning

High-Resolution Page-level Image

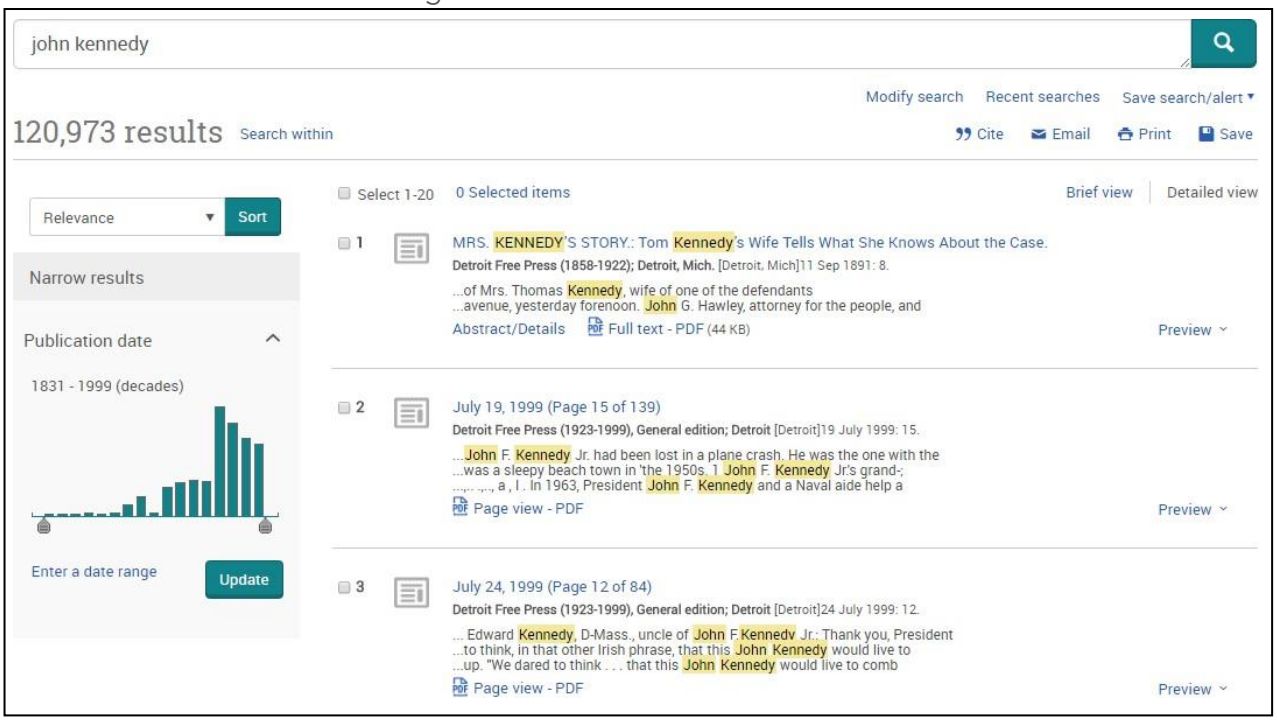
Differences in Searching

The basic searching function is identical for both article-level and page-level. **Every part of every page of ProQuest Historical Newspapers is full-text searchable, whether they are digitized at the article-level or page-level.** If you search for a term such as the name "John Kennedy" and it appears in the OCR text any place on a page, it will generate a hit for that page—whether it is in an

article title, in an article, in an advertisement, etc. The primary difference in searching article-level titles is in the Advanced Search: because they include article-level metadata, newspapers digitized at the article-level provide users with the ability to restrict search results to different portions of the newspaper (articles, advertisements, cartoons, etc.).

Differences in Search Results

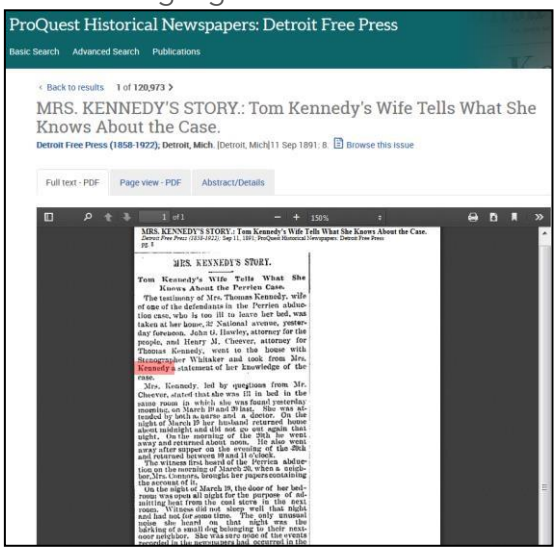
The search results interface has been designed so both article-level and page-level results are presented together in an integrated and intuitive way. Most users are unaware that there is any difference between the following results:



In the example above, the first result is article-level title, and the second and third results are page-level. In each case the user is presented with context and clues that help them quickly determine their interest level in the result. The search text is highlighted to show the keywords in context. The difference is that the article-level result includes the article name, while the page-level result includes the issue date and page.

Differences in Content Display

When a user selects an article-level search result, that article image is displayed with the search term highlighted. When a user selects a page-level result, the entire page of content is displayed with the search term highlighted[1]:



Article-level Result

Page-level Result

The article-level result is a bitonal (black and white) image displayed at 300dpi (dots per inch). The page-level result is a high-resolution greyscale image displayed at 400dpi, which provides almost photographic-like quality of the microfilm images. In both cases the images may be scrolled and zoomed as needed, and saved to the user's local storage.

[1] Hit-term highlighting currently requires that users have the Adobe PDF plug-in installed as the default PDF viewer for their browser. Firefox and Internet Explorer 8 have the Adobe PDF plug-in installed by default. This link describes the use of the Adobe Plug-in with various browsers: https://helpx.adobe.com/acrobat/using/display-pdf-in-browser.html

Enhanced Page-Level Viewing Interface

The page-level interface provides an enhanced browsing experience. When a user selects "Browse this Issue" they are presented with a new newspaper browsing interface optimized for page-level newspaper content. This interface features a scrolling thumbnail section at the bottom of the screen that enables users to quickly skim through a newspaper issue, and a highly intuitive interface that allows a user to manipulate the page image:

Searchable PDF Images

The last difference between article-level and page-level digitization is with the image itself. The page-level images are all searchable PDF files. The downloaded PDF image can be searched using the PDF Reader search function and the OCR text can be copy/pasted into other documents:

He was the one with the poten- tial to atone for all the troubled Kennedys, the one who handled all the Kennedy attention with the most grace, the one who seemed capable of even becoming the president that history revealed his father never really was and never had a chance to be.

Conclusion

While there are differences between the article-level and page-level digitization process, most users will not notice any difference in searching or search result interpretation. All portions of every page are full-text searchable regardless of the treatment. The page-level images are high-resolution 400dpi greyscale searchable PDF files that offer end users exciting new capabilities.

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