

I believe that there is a space for reviewing websites in journals, but that some digital material would be better served to be reviewed online where there is a greater opportunity for dialogue between reviewer and producer.

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doi:10.1017/mdh.2013.58

Review of Contagion: Historical Views of Diseases and Epidemics, Harvard University, <http://ocp.hul.harvard.edu/contagion/>

In the early morning of 14 November 1721, someone threw a homemade bomb through the window of Cotton Mather's home in Boston. This threat on Mather's life was in protest of his support for the practice of inoculation (a note attached to the bomb read 'Cotton Mather, You Dog, Dam You: I'll inoculate you with this, with a Pox to you').¹ At the time, the city was in the midst of a smallpox epidemic that eventually resulted in nearly 6000 people contracting the disease and 844 deaths. In this context, the use of inoculation generated much controversy and gave rise to a minor pamphlet war over its moral and medical implications. These pamphlets and many other primary source materials related to this and other key episodes in the history of disease since 1500 are now available online at *Contagion: Historical Views on Diseases and Epidemics*, a website and digital library collection developed and hosted by Harvard University Library's Open Collections Program. This unique online collection of materials from several repositories at Harvard University includes 'digitized copies of books, serials, pamphlets, incunabula, and manuscripts' from the first outbreak of syphilis in Europe in 1494 to the founding of the World Health Organisation (WHO) in 1948. As indicated on the homepage, the developers of *Contagion* hope that the site will be useful not just to students and scholars of the history of medicine but also to 'researchers seeking a historical context for current epidemiology'.

While its primary function is to serve as a portal to this digital library collection, *Contagion* is also an online exhibit that tells the history of disease in the modern world through the stories of several diseases and epidemics since 1500, mostly in Western Europe and the US. While several pages of the exhibit focus on specific epidemics including 'The Great Plague of London, 1665', 'The Boston Smallpox Epidemic, 1721', "'Spanish' Influenza in North America, 1918–1919'" and 'The Yellow Fever Epidemic in Philadelphia, 1793', other pages provide a broader perspective on a specific disease with titles such as 'Cholera Epidemics in the 19th Century', "'Pestilence' and the Printed Books of the Late 15th Century'", 'Syphilis, 1494–1923', 'Tropical Diseases and the Construction of the Panama Canal, 1904–1914' and 'Tuberculosis in Europe and North America, 1800–1922'. In these sections of the site, the specific diseases and epidemics are also used to highlight broader themes and concepts in the history of medicine. The site also offers additional 'explanatory pages that introduce concepts related to diseases and epidemics' with topics such as 'Colonialism and International Medicine',

¹ Quoted in Cristobal Silva, *Miraculous Plagues: An Epidemiology of Early New England Narrative* (Oxford: Oxford University Press, 2011), p. 218, n. 38.

'Concepts of Contagion and Epidemics', 'Domestic Medicine', 'Germ Theory', 'Humoral Theory', 'International Sanitary Conferences', 'Medical Geography', 'Public Health' and 'Vaccination'. *Contagion* also features links to several pages on 'Notable People', whose works figure prominently in the collection. These include William Gorgas, James Jackson, Robert Koch, P.C.A. Louis, Florence Nightingale, Rudolf Virchow, Max von Pettenkofer and Benjamin Waterhouse. Each of these thematic, topical and biographical pages in the exhibit contain numerous links to other parts of the site as well as links to the relevant primary sources in the collection. For example, while reading about Robert Koch's work on tuberculosis and other diseases, readers can follow links to copies of Koch's *Investigations into the Etiology of Traumatic Infectious Diseases* in English and German. In addition, all pages provide users with a short bibliography of secondary sources on the theme, topic or individual. In this way, these explanatory pages provide an excellent introduction to the collection, while providing non-specialists with background information on the historical, social and cultural contexts of many of the items in the collection.

As an online collection, *Contagion* provides access to materials of use to research on a variety of diseases and topics beyond those noted above. In total, the collection includes more than 2500 digitised texts as well as two unique image collections from the Francis A. Countway Library of Medicine: 'Lantern Slides of the Manchurian Pneumonic Plague, 1910–1911' and 'Medical Satiric Prints, 18th and 19th Century'. For users looking to explore the collection more broadly, *Contagion* offers several options for browsing and searching the collection. First, users may browse by genre or topic; they can also review a list of all the texts in the collection. For example, a link to browse by the genre of 'early printed materials' takes users to a list of all the items in the collection printed in the fifteenth and sixteenth centuries. Second, *Contagion* provides several options for searching the collection. The 'Catalog Search' allows users to search for key terms or phrases in the various fields of the catalogue descriptions of the materials. Search terms or phrases can be entered in any of the languages of the materials in the collection including English, German, French, Spanish and Chinese. The 'Full Text Search' allows users to search key terms or phrases in the 'machine-printed text of books, journals and pamphlets'.

The main critiques of the site probably arise more from the limitations of the collection rather than any explicit shortcoming in the content or design of the site. One of the limitations is geography. While the homepage claims that the collection provides insight into the 'global (...) implications of disease' and 'background information on disease and epidemics worldwide', *Contagion* emphasises epidemics and diseases in Europe and North America. For example, the section on the so-called 'Spanish' influenza focuses almost entirely on the impact and experience of this disease in North America, even though it was a global pandemic in which 500 million worldwide contracted the disease. Another section does focus on efforts to eradicate yellow fever and malaria in Panama; yet, these efforts were mainly an extension of European and American medical practices as well as imperial and economic interests. Of course, much of the emphasis on Europe and the US is probably a product of the scope of the collection. Yet, at the same time, other sections of the site suggest that the collection does contain materials related to the experience of disease in other regions of the globe such as the collection of 'Lantern Slides of the Manchurian Pneumonia Epidemic, 1910–1911'. Ultimately, more emphasis on these materials in the online exhibit may have further highlighted the utility of this collection for exploring the history of disease and medicine from a more global perspective.

In terms of accessibility, the site is generally easy to navigate as a result of effective design. At the same time, the search functions would benefit from providing users with more options for limiting searches to give more focused results. In addition, the online viewer for reading the digitised copies of the materials in the collection is a bit clunky. For example, when viewing digitised copies of texts, there is no way to scroll through the pages or 'turn' the pages electronically; instead, users have to load each page to their browser separately, which takes more time and makes skimming difficult. As for the image collections such as 'Medical Satiric Prints', it takes several steps to move from thumbnails to larger versions of the images. At the same time, the site does offer a unique tool that allows users to find images in the books in the collection – sources which can often be quite difficult to locate in digitised sources. Ultimately, while it is easy to access the collection, the digital manipulation of texts and images could be a bit smoother.

Overall, *Contagion* is an invaluable resource to students and scholars interested in the history of medicine and disease, especially since it brings the rich materials of Harvard University's libraries to a broader community of users. The straightforward and thoughtful design of the site ensures the accessibility of the collection and makes it easy to navigate to the supporting materials. In addition, *Contagion* achieves an effective balance between its functions as a portal to a digital library collection and as an online exhibit. More importantly, the site realises its goal of providing access to materials that allow users to put current epidemiology into the broader social and cultural experience of many of the most important diseases and epidemics in Europe and North America in the last five centuries.

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