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# Octavo Revolutionizes Digital Publishing and Preservation

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# Against the Grain

*"Linking Publishers, Vendors and Librarians"*

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## Innovations Affecting Us — Octavo Revolutionizes Digital Publishing and Preservation

by **Norm Desmarais** (Acquisitions Librarian, Providence College, Phillips Memorial Library, Providence, RI 02918; phone: 401-865-2241; fax: 401-865-2823) <normd@providence.edu> <http://www.providence.edu/pml/pmlhp1.htm>

Column Editor: **Norman Desmarais**

Octavo Corporation ([www.octavo.com](http://www.octavo.com)) was established in 1997 to publish and preserve books, manuscripts, and antiquarian printed materials using state-of-the-art digital tools and formats. The company uses high-resolution digital imaging technology to digitize rare books for academia, libraries, professionals, and retail consumers.

Stored in library and museum vaults and rare book collections, most of these books are unavailable to the public. Octavo's editions now make them accessible to the average person without trips to research libraries or museums. These editions let readers experience the books as they were first presented hundreds of years ago along with the benefits of electronic searching and copying, without handling the originals. Readers can browse the text, read it from cover-to-cover, or examine the finest details, such as the letterpress type or the texture of the paper or the details of the end papers or binding.

It usually takes Octavo's conservators a week or two to complete the imaging process. They position the book in a custom-built cradle under careful lighting, to capture all the details of the book's binding, paper, and typographic features. They then photograph the material with a traditional large-format camera using a hand-built digital film insert. These relatively rare cameras are used by **NASA** for technical analysis, by **Lawrence Livermore Labs** for optical analysis, by high tech companies for wafer analysis, and by law enforcement agencies for criminal forensics work.

Camera operators create sharp and accurate images at resolutions up to 10,600 x 12,800 pixels, capturing as much as 750 MB of data with every digital image. This ensures that the books are "imaged once and archived for decades." Evidently, today's computer monitors cannot display such high resolution images adequately nor can

storage media conveniently store and distribute them. But having the images at such a high resolution means that Octavo can easily repurpose its source files for new, yet-to-be-developed technologies. Octavo currently publishes its titles on CD-ROM at about half of its full resolution capabilities; and it is poised to release titles on **DVD**. The CD-ROM contains three versions of the page images in **Adobe Acrobat** format: Browse (72 dpi), Read (144 dpi), and Examine (432 dpi).

After the photography phase, the images are processed, formatted, and collated against the original work. The completed images and text are combined and distilled into **Adobe Acrobat** format. Bookmarks are created to help readers navigate through the edition (indices, tables of contents, etc.). Each edition also contains a commentary by a noted expert, useful articles about the book arts, bibliographical information, book collations, binding descriptions, and help files.

The editors also create a hypertext table of contents, complete with indices for illustrations and appropriate links. Editions in languages other than English contain a full English translation that is hyperlinked to the book's text. They also include a transcription which goes through a compositing process to reset the pages to correspond and link to the appropriate sections of the page image. This permits a search on the underlying text to go directly to its exact location on the page image. The editions also contain thumbnails of the original page views in the side margins to allow readers to go directly to that view in the book with a single

click of the thumbnail.

Manuscripts and Latin editions often include abbreviations and print variants. For example, the Latin alphabet has no j or w, using ii and uu (double u) where v often substitutes for u. Latinists and medievalists examine the texts and transcriptions to insure that everything corresponds properly. Thus, when the text contains an abbreviation or a ligature, such as dm, a researcher can search for "decem" and locate the exact location of the term, even if it is abbreviated in the original. Long Ss and Cs with curlucues are also converted to their modern counterparts.

After an intensive editorial process of capturing the book's original text, converting it to digital format, and proofing for correctness against the original, the text is placed behind the high-resolution image of the page. This results in what Octavo calls "live text" which is completely searchable. Text passages can also be copied and pasted into other applications. Librarians who have wanted the best of both worlds--page image and fully searchable ASCII text--now have it with Octavo editions. The result is breathtaking imagery combined with full functionality.

Readers can magnify page images in some cases up to 800% of the original book's size to examine minute details. They can also access pages quickly using bookmarks that are organized like a table of contents and can be displayed along the left side of the window, aside the page image, or hidden for easier reading. They can also select and copy any text or por-

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**Innovations**  
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tion of an image for pasting into another application for non-commercial uses. Instead of endorsing a particular operating system, platform, or display technology, Octavo produces its digital books in **Adobe Acrobat** format, making them cross-platform compatible. Readers have the same look and feel regardless of whether they use Windows, Macintosh, OS/2, or UNIX.

Octavo plans to publish eighteen titles per year. The first volume includes: **Bernardino Amico**: *Trattato delle Piante & immagini de Sacri Edifizi di Terra Santa* (Plans of the sacred buildings of the Holy Land), **Giambattista Bodoni**: *Manuale Tipografico* (Typographic manual), **Geoffrey Chaucer**: *The Works Now Newly Imprinted*, **Nicolaus Copernicus**: *De Revolutionibus Orbium Coelestium* (On the revolutions of the celestial spheres), **Albrecht Durer**: *Underweysung der Messung* (Instructions in measurement), **Benjamin Franklin**: *Experiments and Observations on Electricity*, **Galileo Galilei**: *Sidereus Nuncius* (The sidereal messenger), **William Harvey**: *Exercitatio Anatomica de Motu Cordis et Sanguinis in Animalibus* (On the motion of the heart and blood in animals), **Hans Holbein**: *Icones Historiarum Veteris Testamenti* (Images of the Old Testament), **Robert Hooke**: *Micrographia*, **Owen Jones**: *The Grammar of Ornament*, **John Merbecke**: *The Booke of Common Praier Noted*, **John Milton**: *Areopagitica*, **Isaac Newton**: *Opticks*, **William Shakespeare**: *Poems*, **Joseph Smith**: *The Book of Mormon*, **Andreas Vesalius**: *De Humani Corporis Fabrica* (On the fabric of the human body), **John Wycliffe**: *The New Testament*.

Plans for volume two include: **Thomas Bell**: *A Monograph of the Testudinata*. **Jacob Bigelow**: *American Medical Botany*. **Giovanni Battista Braccelli**: *Bizzarie di Varie Figure* (Various bizarre figures), **Lewis Carroll**: *The Adventures of Alice in Wonderland; Through the Looking Glass*, **Alexander Jackson Davis**: *Rural Residences, Etc. consisting of Designs, Original and Selected, for Cottages, Farmhouses, Villas, and Village Churches*, **Domenico Fontana**: *Della Trasportatione dell' Obelisco Vaticano* (The transportation of the Vatican obelisk), *Horae Beatae Mariae ad usum Romanum* (The hours of the Blessed Virgin Mary according to the Roman use), **Gerardus Mercator**: *Atlas sive Cosmographicae Meditationes de Fabrica Mundi et Fabricati, Figura* (Atlas, or cosmographical meditations on the frame of the world and its form), **Andrea Palladio**: *I Quattro Libri dell' Architettura* (Four books on architecture), **Agostino Ramelli**: *Le Diverse et*

*Artificiose Machine* (Various and ingenious machines), **Pierre Joseph Redoute**: *Les Roses, Louis Renard*: *Poissons, Ecrevisses et Crabes, de Diverse Couleurs et Figures Extraordinaires..* (Fishes, crayfishes, and crabs of diverse coloration and extraordinary form...), **Francis Sandford**: *The History of the Coronation of... James II*, **Walt Whitman**: *Leaves of Grass*.

Prices for each title range from US\$20 to \$75, comparable to a hard-cover book or a trade paperback and considerably less than printed facsimile editions. This now makes it affordable for the retail consumer or a researcher to own a facsimile of rare first editions of landmark publications of Western civilization. (Last year, a copy of **Galileo Galilei's** *Sidereus Nuncius* with a folio missing sold at auction for \$250,000.)

Libraries and institutions can set up standing orders for \$1,000 per volume which averages \$55 for two copies of each title. The standing order program, called the **Octavo Digital Rare Book Room**, entitles a subscriber to two copies of each title one for reference use and one for lending, an unlimited site license program, a 40% discount (off list price) on replacement costs for lost or stolen CDs or additions to the two copies per title, and special patron pricing available through a group discount plan. Subscribers also receive a wall-size poster to announce and advertise this new addition to the collection as well as an optional, free clear Lucite display case which holds forty-eight Octavo editions and sports a custom-printed display sign with the library's or institution's name on it. For personal attention, librarians can contact **Mr. Brett Butler**, Library Sales Manager, at 650-470-0159 or [brett@in4.net](mailto:brett@in4.net).

Octavo obtains rare books and manuscripts through partnerships with libraries, museums, and individual collectors. Each partner institution receives royalties on sales, a copy of Octavo's original source files for its own use, discounts on products, and the opportunity to participate in co-marketing programs.

Octavo cannot publish thousands of digital titles alone; so the company offers the complete **Octavo Digital Lab** for resale to institutions under a non-compete licensing agreement. Several libraries and museums around the world are reviewing this digital preservation technology for their own use.

Octavo is creating a digital preservation solution as well as a publishing program. By using the highest resolution digital camera available and taking the time to properly photograph books, manuscripts, and other material, Octavo's data files can conceivably last for centuries and be migrated to new digital media as they are developed.



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