

Some Key Terms and Definitions

This report uses a number of terms whose definitions are important in order to facilitate understanding. Some of these key terms are introduced here. The definitions provided are functional, not legal.

Federal information—information collected and/or developed by agencies of the U.S. Government as part of official agency responsibilities. Federal information includes knowledge or intelligence, such as facts, data, or opinions, in numerical, graphic, or narrative forms, regardless of mode or medium by which it is maintained or communicated. Thus, Federal information can be statistical data on a floppy disk or in a hardback book, or agency regulations on a CD-ROM or in a paper pamphlet. This report focuses primarily on Federal information that is public (e.g., not subject to FOIA exemptions for personal, proprietary, or classified information).

Printing—Federal information can be printed, published, and disseminated, although the distinctions between the latter two terms can be rather artificial. Printing is the process of stamping, impressing, or copying information in the form of letters, numbers, graphics, and the like on some kind of surface, such as paper or microform. In traditional ink-on-paper printing, paper is pressed against an inked printing surface to make copies or impressions of the original informational material. The inked printing surface or plate is typically made by creating a picture of the original on a photosensitive surface (the plate). Printing as a term is typically used to include all steps in the printing process, from layout and composition to binding. Layout is the planning or designing of the arrangement of material to be composed and printed. Composition is the production and arrangement of typographic characters or type for printing. Binding is the tying together or compiling in a bound form of the printed pages of a book, pamphlet, and the like.

Publishing—is the overall process of creating, reproducing, and releasing or issuing informational material for sales or distribution. In the Federal Government, the publishers are generally considered to be the agencies that originate or create the material for sales or distribution. The publishing agencies provide the original material (to be typeset or camera-ready), specify the format and number of copies to be printed (usually by or through

GPO for ink-on-paper printing, and occasionally by agency inhouse print shops), and handle the sales and distribution of copies from the agency. Sales and distribution of some documents are handled by the Superintendent of Documents. For scientific and technical material, copies may be provided to NTIS for archiving and sales on demand.

Information dissemination—the process by which information is actively distributed to the public by government agencies or through other mechanisms or channels (including the private and not-for-profit sectors). Information is disseminated in a variety of formats and media, and in such a way that the interested public can readily become aware of the availability of such information. Thus, dissemination focuses on the output part of the informational process, while printing focuses on the processing or reproduction of the information into a form suitable for distribution, and publishing includes the creation of the information as well as its reproduction and distribution. Examples of Federal dissemination mechanisms include the SupDocs and NTIS sales programs, Consumer Information Center (for distribution of consumer pamphlets produced by agencies), Depository Library Program (for distribution of agency publications to participating libraries), and the various agency information centers and information clearinghouses.

Information access—the process by which individuals can obtain Federal information on their own initiative. The most frequently cited mechanism for such access is the Freedom of Information Act (FOIA). However, this report uses the broader concept of information access to include anything that facilitates the ability or freedom of the public to obtain Federal information. In this sense, facilitating public access to Federal information is accomplished in large measure by Federal printing, publishing, and dissemination activities as well as by access mechanisms such as FOIA.

The major part of this report examines the alternatives and issues associated with extending the concepts of printing, publishing, and dissemination from traditional ink-on-paper forms of informational material to electronic forms. In this report, electronic printing, electronic publishing, and electronic dissemination are defined as follows.

Electronic printing—the process of electronically creating or copying images of information in the form of letters, numbers, graphics, and the like on some kind of surface. For example, in laser printing, the digitized information is fed to a laser that creates a dot-matrix image either directly on photosensitive paper, or indirectly on a photo-receptor device in the printer that transfers or “prints” the image onto paper. In impact printing, the digitized information is fed to a microcomputer chip that drives a printing head (e.g., a daisy wheel), which in turn impresses or stamps the information on a surface such as paper.

Since both ink-on-paper printing and electronic printing typically use electronic photocomposition, the major difference is that electronic printing eliminates the need for creating photo-negatives and printing plates and using printing ink and mechanical presses to transfer images onto paper. Another major difference is that with electronic printing, the images can be transferred to a variety of other surfaces besides paper. These include magnetic tape, floppy disks, and optical disks, where the digitized information is transferred in digital form onto a surface that is magnetically or optically sensitive and then “printed” by electromagnetic or laser devices.

Electronic publishing—is the use of electronic forms of information throughout the entire publishing process, from creation, editing, and revision, to printing and distribution. “Electronic publishing” is frequently used synonymously with electronic printing. Thus, so-called desktop publishing is a version of electronic printing that permits iterative electronic composition and page layout by the author or originator of the informational

material, its display on a computer screen (i. e., in so-called “soft” electronic form), its reproduction on paper or in electronic form, and the distribution of the “printed” material electronically if desired (e.g., remote locations and/or by printing-on-demand). The term “desktop” simply means that all of this can be done with relatively low-cost microcomputers, terminals, laser printers, telecommunication lines (if needed), and the necessary software. So-called “high-end” electronic publishing systems perform the same generic functions, but can handle more complex, higher volume, and/or longer informational materials. These systems usually can handle considerably more information, and require specialized expertise on the part of equipment operators. (See ch. 3 for further technical discussion of desktop and high-end electronic publishing and related technologies.)

Electronic dissemination—the active distribution of information to the public by government agencies or through other mechanisms and channels (including the private and not-for-profit sectors) using electronic formats, such as magnetic tapes, floppy disks, optical disks, online, and remote printing-on-demand. It also includes advising the public of the availability of such information. Electronic dissemination presumes electronic printing of the tapes and disks, and the distribution of copies printed remotely. Electronic dissemination is compatible with, but does not require, electronic publishing in the sense that the information does not have to be created in electronic form for it to be converted later into an electronic format suitable for distribution.

For further discussion of technical terms used in this report, see chapter 3.