The document is a particularly important vernacular genre, both sprawling and ubiquitous. We know it by its diverse subgenres — the memo, for instance, or the green card and the promissory note — as well as by its generalized, cognate forms, like documentary and documentation. This book is about the genre of the document glimpsed selectively in four episodes from media history. Each episode concerns a different medium for the reproduction of documents, since reproduction is one clear way that documents are affirmed as such: one of the things people do with documents is copy them, whether they get published variously in editions (like the Declaration of Independence, for instance), duplicated for reference (like the photocopy of my passport that I carry in my suitcase), sort of or semipublished for internal circulation (like a restaurant menu), or proliferated online (mirrored and cached like the many documents in Wikileaks).

Although reproduction is one of the functions that have helped people to reckon documents as documents — as I hope to elaborate below — the core function of the document genre is something else entirely. The word "document" descends from the Latin root *docer*, to teach or show, which suggests that the document exists in order to document. Sidestepping this circularity of terms, one might say instead that documents help define and are mutually defined by the know-show function, since documenting is an epistemic practice: the kind of knowing that is all wrapped up with showing, and showing wrapped with knowing. Documents are epistemic objects; they are the recognizable sites and subjects of interpretation across the disciplines and beyond, evidential structures in the long human history of clues.[1] Closely related to the know-show function of documents is the work of no show, since sometimes documents are documents merely

by dint of their potential to show: they are flagged and filed away for the future, just in case. Both know show and no show depend on an implied self-evidence that is intrinsically rhetorical. As John Guillory notes, "persuasion is implicit in *docere*."[2] If all documents share a certain "horizon of expectation," then, the name of that horizon is accountability.[3]

A quick word on genre: As I understand it, genre is a mode of recognition instantiated in discourse. Written genres, for instance, depend on a possibly infinite number of things that large groups of people recognize, will recognize, or have recognized that writings can be for. To wit, documents are for knowing-showing. Schoolbooks have long suggested, by contrast, that genre is a question of ingredients or formal attributes — sonnets have fourteen lines, for instance, while comedies end in marriage and tragedies in death — so I'm urging a different perspective by focusing on recognition that is collective, spontaneous, and dynamic.[4] As an analogy, consider the word search, that pencil puzzle that newspapers sometimes print next to the crossword. In the word search, your task is to recognize and circle words amid a two-dimensional grid of random letters. You recognize the different words that you do because words are conventional expressions and because you know how to read. The words don't just lie there on the page waiting, that is; they are also already inside you, part of the way you have learned (and been schooled) to communicate with people around you. Likewise genres — such as the joke, the novel, the document, and the sitcom — get picked out contrastively amid a jumble of discourse and often across multiple media because of the ways they have been internalized by constituents of a shared culture. Individual genres aren't artifacts, then; they are ongoing and changeable practices of expression and reception that are recognizable in myriad and variable constituent instances at once and also across time. They are specific and dynamic, socially realized sites and segments of coherence within the discursive field.

But what *is* a document? Bibliographers and other information specialists have persisted in puzzling over this question for at least the last hundred years. Most famously, the French librarian and "documentalist" Suzanne Briet proposed in 1951 that an antelope running wild would not be a document, but an antelope taken into a zoo would be one, presumably because it would then be framed — or reframed — as an example, specimen, or instance.[5] She was pushing a limit case, as Michael Buckland explains, drawing attention to the properties of documents: they are material objects intended as evidence and processed or framed — if not always caged —

as such.[6] Although I think it is probably best to remain agnostic on the question of antelopes, Briet and Buckland help underscore the context-dependent character of the know-show function. Any object can be a thing, but once it is framed as or entered into evidence—once it is mobilized—it becomes a document, an instance proper to that genre. What is notably obscured by the exoticism of Briet's instance is just how intricately entangled the genre and the thing can be and have become over the last several centuries.[7]

Written genres in general are familiarly treated as if they were equal to or coextensive with the sorts of textual artifacts that habitually embody them. This is where media and formats enter the picture. Say the word "novel," for instance, and your auditors will likely imagine a printed book, even if novels also exist serialized in nineteenth-century periodicals, published in triple-decker (multivolume) formats, and loaded onto—and re-imagined by the designers and users of—Kindles, Nooks, and iPads. Not all written genres are subject to the same confusion with the same intensity (say "short story," for instance), but documents familiarly are, descendant of a long and varied tradition that forever entangles the material form of an expression with its linguistic meanings or incompletely distinguishes the two—confusing "the text" and "the work," to put that more succinctly.[8] So tickets, receipts, and business cards count as things at the same time that they count as subgenres of the document; they are patterns of expression and reception discernible amid a jumble of discourse, but they are also familiar material objects to be handled—to be shown and saved, saved and shown—in different ways. When it comes to documents, it should be clear, a thing made of paper and bearing semiotic traces is not merely the most typical case, it is also the most salient, since the affordances of paper and the function that defines documents have become inextricable from one another during the many centuries in which paper has been in general use, whether under conditions of scarcity, plenitude, or excess.[9]

The ways that paper works have become part of what documents are for, and vice versa, though the workings of paper are admittedly complex and even paradoxical. Consider that paper is a figure both for all that is sturdy and stable (as in, "Let's get that on paper!"), and for all that is insubstantial and ephemeral (including the paper tiger and the house of cards).[10] Likewise, paper is familiarly the arena of clarity and literalism—of things in black and white—at the same time that it is the essential enabler of abstraction and theory, as in mathematics and theoretical physics.[11] Paper serves as

a figure for all that is external to the mind — the world on paper — as well as all that is proper to it, the tabula rasa. Contradictions like these hint at the complexities that documents may present as paper things, while digital things admittedly help destabilize many of the foregoing generalizations in additional and interesting ways. (What is digital thingness, after all?[12]) That said, the genre of the document and the commonsensicality of its life on and as paper have both been crucial to the designers and users of digital media, partly in the negative sense — via the structuring myth of the paperless office, for instance — and partly in the positive.[13] Think of the "My Documents" folder on every PC, for instance, or the "Documents" on every Macintosh. The e-ticket is another good example; a familiar subgenre of the document that is today variously reckoned on screen: bought and sold, uploaded and downloaded, sent and saved, known and shown.

Documents are important not because they are ubiquitous, I should be clear, but rather because they are so evidently integral to the ways people think and live. The epistemic power of the know-show function is indisputable, and the properties of documents matter in all kinds of far-reaching ways. As Geoffrey Nunberg describes it, information is understood today to come in discrete "morsels" or bits partly because of the way the concept of information reifies the properties of paper documents; they are separate and separable, bounded and distinct. Likewise, information has an objective, autonomous character partly because of the way it reflects the authoritative institutions and practices to which documents belong.[14] What this reflection of authority suggests is that documents — unlike information, interestingly enough — are importantly situated; they are tied to specific settings. Again, the know-show function is context-dependent in space and time: consider the poor antelope, trapped within the zoological garden. Or consider the 1839 *American Slavery as It Is*, a key document in the history of the abolitionist movement in the United States. Compiled in part from Southern newspapers, it altered the contexts of advertisements describing runaway slaves by recognizing their value for republication in the North.[15] Republication turned the ads into a powerful indictment of slavery because they so frequently described runaways in terms of bodily mutilations. Embedded in local newsprint these advertisements had been documents, to be sure, but collecting them and reproducing them in another context for another audience made them know-show with much greater force. What had been published first as instruments calling the slave system into complicity, to aid in slaves' recapture, were

now republished as instruments of moral suasion whereby the slave system became paradoxically enrolled in the antislavery cause: slavery "as it is" condemns itself. Because it implies accountability, knowing and showing together constitute an epistemic practice to which ethics and politics become available, even necessary.

Documents are integral to the ways people think as well as to the social order that they inhabit. Knowing-showing, in short, can never be disentangled from power—or, more properly, control.[16] Documents belong to that ubiquitous subcategory of texts that embraces the subjects and instruments of bureaucracy or of systematic knowledge generally. "The dominion of the document," Guillory notes, "is a feature of modernity," though documents of course predate the modern and exceed modernity.[17] They were part of the way that medieval subjects, for instance, expressed distrust amid the anxious contexts of uncertain power relations.[18] In the modern era documents have cultural weight mostly according to their institutional frames—the university, the corporation, and the state, for example—however remote the contextual framework can sometimes seem. As a growing literature in anthropology, sociology, and literary and cultural studies now elaborates, documents are at once familiar "props in the theater of ruling [and] policing" and the fetish objects "of the modern economic era," while bureaucracies don't so much employ documents as they are partly constructed by and out of them.[19] Thus the colonial subjects of British South Asia once called their government the Kaghazi Raj, or document regime, while today in the United States we live in an age of "undocumented" human beings at the same time that errors and malfeasance in "document execution" have helped exacerbate and extend a housing foreclosure crisis.

Some readers may rightly sense a connection between the genre of the document so described and Bruno Latour's interest in inscriptions. "Inscription" is the broader term, but favoring the document genre in this book aims both at particular contexts—the institutional and the everyday—and at substance, substrate, or platform: typically, if not necessarily, paper and paperwork. Latour follows inscriptions in order to explain "our modern scientific culture" and its power, without recourse either to overarching "mentalist" explanations (as if you could climb inside people's heads to see what makes them modern) or overarching materialist ones. Better instead, he argues, to pursue what he calls a strategy of deflation— to look, that is, for more mundane phenomena, not in the brain or in ab-

stractions like the Social or the Economy, but rather in the everyday things that people do and handle when they are modern: They mobilize inscriptions.[20] This book seconds Latour's move. My interest in the genre of the document is deflationary in the very least because documents may be distinguished from more elevated uses of text, as in "the literary," and from more elevated forms of text, like "the book" — the former residing as it does closer to the mentalist end of the spectrum and the latter closer to the materialist end. The literary is a category of imagined and imaginative works evident across materialized instances: Shakespeare's *Hamlet*, famously, is a work existing across multiple editions, countless productions, and infinite appropriations.[21] It doesn't exist in any one place as much as it exists anywhere and everywhere its interpretations do. The book, meanwhile, is a category of material goods, an object of commerce as well as of librarianship and pedagogy, the focus of scholarly domains (especially bibliography and the history of the book) as well as a powerful metonym within the popular discourse that so incessantly debates the supposed death or future of printed books and reading.

The document, in contrast, lives at a larger, lower level. Its study earns a more catholic sociology of text and enables a view of disciplines and disciplinarity turned "inside out" and disciplines thought from scratch.[22] Documents have existed longer than books, paper, printing, or the public sphere, and certainly longer than the literary has been described as such. Thinking about documents helps in particular to adjust the focus of media studies away from grand catchall categories like "manuscript" and "print" and toward an embarrassment of material forms that have together supported such a varied and evolving scriptural economy.[23] Focusing selectively on the last 150 years, the pages that follow consider documents that are handwritten, printed, typed, mimeographed, microfilmed, photocopied, scanned, and more. They consider how these different sorts of documents were themselves considered amid the contexts of their production, reproduction, and use, as well as what such considerations might tell us about documents and the contexts of their circulation more generally. Like Jonathan Sterne's recent book on a particular format (the MP3) or Bonnie Mak's recent book on a particular interface (the page), my focus on a particular genre works to decenter the media concept precisely in order to evolve a better, richer media studies.[24]

There are several arguments lurking here, two of which may be stated simply as goals of this book. The first is that a more detailed account of

documents in the past will without question facilitate more nuanced accounts of documents in and for the future. That said, teleology is not my stock in trade. I do not wish to render the past narrowly in terms of or service to the present any more than I would deny that present "adventures" with technology — as Jacques Derrida puts it — promote "a sort of future anterior," enriching our sense of the past.[25] In what follows I have aimed to open the question of digital text — or to allow readers to open that question — in what I hope are original and productive ways, inspired in part by the work of Matthew Kirschenbaum, Richard Harper, and David Levy, among numerous others.[26] Readers may find in the end that this book hops toward digital media and then refuses to land there, or at least refuses to plant a proper flag on arrival. Chapter 4 concerns a digital format for documents — the portable document format or PDF file — but it is a peculiarly backward-looking format, characterized by what Marshall McLuhan might have called an acute rearview-mirror-ism.[27] ("Warning: Objects in mirror . . .") A second, related argument advanced here is that the broad categories that have become proper to the history of communication and that increasingly have a bearing on popular discourse are insufficient and perhaps even hazardous to our thinking.[28] I refer in particular to the concept of "print culture," and one aim of what follows is to discourage its use.

The history of communication typically defines print by distinguishing it from manuscript, yet there is considerable poverty in that gesture. Far from being a simple precursor, manuscript stands as a back formation of printing. (That is, before the spread of printing there wasn't any need to describe manuscript as such.[29]) Meanwhile print itself has come to encompass many diverse technologies for the reproduction of text, despite its primary, historical association with letterpress printing à la Johannes Gutenberg. Until the nineteenth century every "printed" text was printed by letterpress, using a process of composition, imposition, and presswork very like the one that Gutenberg and his associates and competitors developed in the mid-fifteenth century, although saying so admittedly overlooks xylography (woodblock printing) and intaglio processes like printing from copperplate engravings. Since 1800, however, multiple planographic, photochemical, and electrostatic means of printing have been developed and variously deployed, to the point that in the twenty-first century virtually nothing "printed" is printed by letterpress. With the tables turned, the term "print" has floated free of any specific technology, if indeed it was ever securely moored in the first place. Instead "print" has become

defined—as if in reflexive recourse to its own back formation—by dint of "a negative relation to the [writer's] hand."[30] Any textual artifact that is not handwritten or otherwise handmade letter by letter (typed, for example) counts as "printed," and lately even the printer's hand has gone missing, since today "printers" are usually not human: now the term more familiarly designates machines proper to the realm of consumer electronics. (Curiously—and unlike human hands—office printers have been almost without exception beige in color, although that norm appears to be changing.) The fact that Gutenberg's bible and the assortment of drafts and documents rolling out of my laser printer all count as "printed" only goes to show how difficult it can be to speak or write about media with any great precision. This is partly due to the poverty of terminology, but it is also partly due to the persistent if idiosyncratic power of the media concept.

If "print" is tricky, "print culture" is problematic in an entirely different way. As Paula McDowell explains, the term was coined by McLuhan in the 1960s and then earned its broad utility with the 1979 publication of Elizabeth L. Eisenstein's *The Printing Press as an Agent of Change: Communications and Cultural Transformations in Early-Modern Europe*. Eisenstein's version of print culture, which includes a useful critique of McLuhan, has itself been the subject of sustained critique for its apparent suggestion that there is a logic inherent to print—the "soft" determinism, if you will, of calling the printing press itself "an agent of change"—yet even the notion's harshest critics have tended to redefine or reinstall "print culture" rather than reject the idea that there is any such thing.[31] Adrian Johns, for instance, points toward "sources of print culture" that are less technological than social, tracing the "conventions of handling and investing credit in textual materials" that emerged during the sixteenth and seventeenth centuries in Europe—mutual and coincident, as it happens, with the knowledge making of early modern science.[32] For his part, Michael Warner tries to avoid writing of "'print culture,' as though to attribute a teleology to print," while he traces the eighteenth-century development of what he calls "republican print culture" in Anglo-America, which, as it happens, came to double as the logic of the bourgeois public sphere.[33] In both cases print culture is something that developed according to the uses of printing, as those uses became widely shared norms.

Used in this way, the concept of print culture works as a gaping catch-all that depends on "the steadily extending social and anthropological use

of [the term] *culture*"[34] to suggest a pattern of life structured to some degree by what Warner calls "the cultural meaning of printedness."[35] But how widely, how unanimously, and how continuously can the meanings of printedness be shared, and what exactly are their structuring roles? How best to find out? How would we know? With science and the public sphere as its mutual cousins, print culture starts to seem related in scale to Western modernity itself and thus to jeopardize explanation in all of the same ways that concept does. Jonathan Crary signals some of this jeopardy at the beginning of *Techniques of the Observer: On Vision and Modernity in the Nineteenth Century*, when he writes: "What happens to the observer in the nineteenth century is a process of modernization; he or she is made adequate to a constellation of new events, forces, and institutions that are together loosely and perhaps tautologically definable as 'modernity.'"[36] So print culture and the cultural meanings of printedness risk chasing each other, cart and horse, explanation and *explanandum*, like modernization and modernity.[37]

This is not to deny the importance of printing or to disparage the works of Johns or Warner, on which I gratefully rely. It is only to argue against the use of print culture — or even print cultures, plural, as an analytic set loose from the very specific histories of printing, print publication, regulation, distribution, and circulation.[38] We might likewise be wary of recent claims that "the Age of Print is passing" because "print is no longer the default medium,"[39] a notion promoted in 2009 by none other than the Modern Language Association of America (MLA), which "no longer recognizes a default medium" in the *MLA Handbook for Writers of Research Papers*.[40] (Current MLA style directs researchers to label works cited as "Print" or "Web," as appropriate.) Not only do statements like these tend to reify (to default to?) print as one thing instead of many, but they also impute a generalized cultural logic for print and — by extension — other media, at the same time that they fall back on the old Romantic trick by which Western modernity forever periodizes itself as modern.[41] Better instead to resist any but local and contrastive logics for media; better to look for meanings that arise, shift, and persist according to the uses that media — emergent, dominant, and residual — familiarly have.[42] Better, indeed, to admit that no medium has a single, particular logic, while every genre does and is. The project of this book is to explore media history further, not just by juxtaposing one medium with another but also by working a selective history of one especially capacious genre — the document — across different media.

The histories of genres and the histories of media don't so much overlap as they intersect, constituting partial and mutual conditions for one another. Unless they focus on the political economies of print publication, accounts of written genres usually understate this point, stressing instead the importance of broad social patterns or dwelling on developments in intellectual history. So — thinking about subgenres of the document — the memorandum is descended from the business letter, catalyzed by the managerial revolution of the nineteenth century amid the forgetting of rhetoric; while the passport is descended from the diplomatic letter, catalyzed by modern governmentality and its construction of personal identity.[43] The genres of the credit economy, similarly, emerged within and into a dynamic genre system for "mediating value."[44] Stories like these, it almost goes without saying, involve words and images and an extensive repertoire of techniques (devices, structures, practices — in short, media) for producing and reproducing them for circulation: letterpress printing and typewriting, carbon paper and photocopying, steel and copperplate engraving, photography and lithography, penmanship and rubber stamps, and so on. Media and genre support each other, as shared assumptions evolved amid the proliferation of related instances serve dynamically to underwrite and articulate the know-show function. The genre and its subgenres are recognizable by dint of repetition with variation, conditioned in part — at least in this present extended age of technological reproducibility — by the diverse media of their production and reproduction.

....

The pages that follow begin an inquiry into documents with an episode from their maturity, when the document genre had already flowered into numberless subgenres of increasing variety and specialization, and when its institutional contexts were already legion. Not only did the nineteenth century witness a radical diversification in what counted as writing — think of its many "-graphies"[45] — but the postbellum social order in the United States also became increasingly diversified and bureaucratic, one part Max Weber's iron cage and another part a conflicted jangle of aspirations, allegiances, and demands. It was an extended moment now familiar to media history, when industrial print production and the additional subjectivities of increased literacy and access to print were increasingly supported and framed by photography, phonographs, and the new electronic communications media. Numerous earlier episodes are also fascinating,[46] but

starting an inquiry into documents around 1870 helps put the techniques and practices of mechanized textual reproduction and the ever expanding scriptural economy at center stage. The new sonic and electronic media of the late nineteenth century will not cut much of a figure in my account, yet their proliferation was (and is) admittedly what has helped to consolidate "print" — and, eventually, "print culture" — so bluntly as such. Each of the four chapters that follows argues for a more nuanced account of print by attending to the recent history of documents and the means, meanings, and methods of their reproduction in necessary detail.

Chapter 1 operates in a deflationary mode, both by taking up documents and by considering the often neglected work of commercial or "job" printers. Job printing was a specialization that accounted for roughly a third of the printing trades in this period, and for this reason alone its output must have contributed largely to the meanings of letterpress printing (and the by then allied engraving and lithographic processes), even though it does not fit neatly within the framework of "print culture" as print has traditionally been described by the history of communication. Indeed, because nineteenth-century job printing has so seldom been studied on its own in any significant detail, it has never been clear the extent to which job printers sidelined the time-honored subjects and agencies that have come to populate generalizations about print media and the history of the book, including authors, readers, publishers, booksellers, and editors. Considered as an admittedly heterogeneous class, telegram blanks, account book headings, menus, meal tickets, stock certificates, and the welter of other documentary forms that issued in such profusion from jobbing houses in the nineteenth century suggest a corrective addition to — or perhaps an additional negation of — the histories of authorship, reading, and publishing. It would seem that a — maybe even *the* — significant amount of the bread and butter of the printing trades was the printing of documents that were merely printed, not edited or published. These were documents that didn't — as chapter 1 will elaborate — have readers or create readerships, nor did they have authors or entail authorial rights. Nor in many cases were printed documents of this sort produced in the interests of cultural memory or even meant to last for very long, despite the storied self-regard of nineteenth-century printers themselves for printing as "the art preservative of all arts," to use a phrase common in the trade literature.

With some exceptions, the documents produced by job printers in the later nineteenth century were instruments of corporate speech proper to

the conduct of businesses of every sort, as well as to the operations of institutions such as schools, churches, voluntary associations, and municipalities. These were contexts in which the know-show function might hinge triply on what documents said, on their format (the size, weight, and folds of the paper on which they were printed), and on their formatting (their layout and typographical design) created by the compositors who set them in type.[47] The meaning of documents thus inheres symbolically, materially, and graphically, according to the contexts in which documents make sense as visible signs and/as material objects.[48] A multitude of forms—some of them literally fill-in-the-blank forms—helped to shape and enable, to define and delimit, the transactions in which they were deployed. In their sheer diversity and multiplicity, documents originating with job printers point toward a period of intense social differentiation, as Americans became subject to a panoply (or, rather, a pan-opoly) of institutions large and small, inspiring a prolific babble of corporate speech. Beyond the simple logic of spheres—public and domestic—job printing indicates an intersecting tangle of transaction, as individuals used printed and written documents variously to negotiate—with greater and lesser success, one must imagine—their everyday relationships to and amid many institutions and institutionalized realms all at once.

Chapter 1 argues for the neglected importance of the jobbing press and its centrality within "the dominion of the document," while describing the extended moment at which printers were about to lose their monopoly on the means of documentary reproduction. Widely recognized to have undergone a process of industrialization in the later nineteenth century, the printing trades also for the first time faced the possibility of competing, amateur print production, as smaller jobbing presses were marketed to young adults and other amateurs. Still more significant competition emerged as part of the so-called managerial revolution, as new imperatives for "control through communication" inspired new labor patterns and new technologies for writing and copying that both dramatically expanded and diversified the scriptural economy.[49] Soon secretaries (edging out clerks) in offices produced and reproduced documents as means of both internal and external communication, working at typewriters and a parade of other mechanical Bartlebies. Rather than dwell on this "control revolution," described so ably by JoAnne Yates, James Beniger, and others,[50] chapter 2 jumps forward in time to the 1930s, when new media for the reproduction of documents—among them photo-offset, mimeograph, hectograph, and

microfilm — were celebrated as alternatives to letterpress printing with the potential to transform publishing and publication. Rather than continuing to pursue documents sketchily and speculatively across the increasingly differentiated social order, chapter 2 investigates a single social subsystem in detail. Other scholars have followed documents within specific government bureaucracies, nongovernmental organizations, and modern corporations.[51] I focus instead on the admittedly more diffuse realm of scholarly communication, where enthusiasts noted the power of new media to transform scholarship by changing the ways that documents might be reproduced for circulation. One result of this focus is a turn away from documents that are created to operate in an indexical register that is primarily identitarian — like the travel visa, birth certificate, or theater ticket — and toward the related, vast, and inarticulate arena of un- and semipublication in which documents simultaneously enable and delimit both institutional memory and system-specific or system-oriented communication. This is not a distinction as much as an emphasis, one that helps underscore the increasing scale and diversity of modern institutions.

Whether glimpsed in titles such as Martha Graham's *American Document* (1938) or in the better-known work of documentary photographers sponsored by the Farm Securities Administration or the guidebooks produced by the Federal Writers' Project, the 1930s was a decade of intense "documentary expression," of Americans trying to know and show themselves to themselves.[52] Different documentary forms possessed different "aesthetic ideologies,"[53] while the project of knowing and showing — although scattered and diverse — worked persistently to beg "the question of how [or, indeed, whether] representation can have agency."[54] Could — can — the knowing-showing of social documentary really make a difference? Will documenting an inconvenient truth for public consumption prompt any real action? Against this backdrop of more familiar documentary forms and impulses, chapter 2, like chapter 1, takes a deflationary tack. Instead of pursuing the documentary representations of dance, cinema, theater, or other arts arising — as Michael Denning explores — along the cultural front, this chapter considers the lowly typescript document. Even as feminized secretarial labor remained strangely invisible, a structuring absence,[55] the look of typescript carried important connotations in the 1930s, marking documents that were internal to the workings of business, journalism, corporate and state bureaucracy, education, and scholarship. Typescript documents were unpublished or prepublished, subject to cor-

rection, revision, versioning, and obsolescence. Reproducing typescripts, whether by mimeograph, photo-offset, or other means, retained the look of the bureaucratic process and associated secretarial labors, while it also successfully ended the monopoly that printers had so long possessed — the monopoly that had lasted for the four centuries during which print publication had required letterpress printing. Letterpress printing continued, of course, now with the aid of linotype and monotype typecasting machines, but something of the look and distributive functions of print could now be had by other means.

Chapter 2 pursues the work of a committee convened jointly by the American Council of Learned Societies and the Social Science Research Council. The Joint Committee on Materials for Research, as it was eventually called, responded both to the promise of new media for documentary reproduction and to what was widely perceived as a crisis in scholarly communication exacerbated by the Great Depression. More and more intensive specialization across the humanities and social sciences made the publication of scholarly resources unappealing to commercial publishers — readerships were small — at the same time that other avenues for publication were fragile and few amid the global economic downturn. The Joint Committee equated reproduction with access: if the appropriate media of reproduction were deployed, scholars might gain access to necessary source materials, no matter how rare, and they could have better access to each other's works as well. The committee imagined new tools as a solution, but its members saw that structural changes were also required: new responsibilities for librarians and archivists; new cooperation among scholars and publishers; and new technical and institutional structures for the collection, preservation, organization, and dissemination of materials for research. At the same time that the historical profession was worriedly debating its own relevance to American society, the Joint Committee and its president, Robert C. Binkley, were able to imagine everyday Americans as amateur historians and nonprofessional archivists engaged productively in the collective recognition and preservation of the historical record.[56]

The reproduced typescript documents considered in chapter 2 are interesting and important partly because so many of the related concerns — like the ongoing crisis in the humanities and desirable new tools — remain provokingly relevant today. The work of the Joint Committee assumed an implicitly liberal political philosophy that coincided with New Deal reform. Self-improvement abetted social welfare, while the hoped-for transforma-

tion of scholarly communication was contradictorily imagined both as the canny evasion of market forces and as a calculated triumph over them. The academy in general and the humanities in particular sought to reject the commercial logic of publishing at the same time that they adopted the language of cost-effectiveness and Fordist coordination and control. New sorts of for-profit publishers—such as University Microfilms International, better known as UMI—would prosper, while state sponsorship and philanthropy helped underwrite—modestly and tenuously—the crucial values of liberal intellectual inquiry. Meanwhile, amateur cultural production appeared ascendant, and popular awareness of documents, documentation, and documentary ran particularly high. Then as now, crisis might harbor opportunity—*might*—if only the path forward were not so variously fraught and so obscure.

Chapter 3 jumps thirty years forward in time to describe a different episode in media history, one that offers some additional points of contrast. Rather than consider documents in a single social subsystem (loosely called "scholarly communication," and its institutions that are discussed in chapter 2), chapter 3 considers documents that transgress the borders between different systems, documents that leak beyond the structures of the scriptural economy designed to maintain secrecy, for instance, or to protect intellectual property at the expense of the public domain. In the place of mimeographed or microfilmed documents, chapter 3 considers the photocopy. It begins by dragging photocopies back into the past. Henry Jenkins and others have celebrated self-published fanzines as an early gesture toward today's online sociability. Like so much Web content, tattered old zines—whether by science fiction fans, East Village poets, or coffeehouse radicals and riot grrls—are evidence of the power and persistence of "grassroots creativity."[57] Yet there is a lot still to learn about the ways that old textual duplication technology stands as an antecedent of today's new participatory media. Chapter 3 seeks to fill in some of the missing details by offering an account not of fans or zines but rather of the xerographic medium so many of them have deployed since the 1960s. What did photocopied documents mean—on their own terms—before the digital media that now frames them as old or analog? It seems clear that tacit knowledge of things digital has worked retrospectively to alter the meanings of xerography, not in the least as a result of technological and corporate convergences and mystifications. Today photocopy machines scan digitally rather than not, while laser printers work xerographically, printing according to

the electrostatic principles adapted first for making copies on the photocopy machines that were originally marketed in 1959.

Like the chapters before it, chapter 3 focuses on a few exemplary — if not exactly typical — human actors, yet unlike them it considers actors who were more clearly concerned with "transverse *tactics*" than with the "technocratic (and scriptural) *strategies*" that their actions inhabit and potentially subvert. The tactic-strategy distinction is Michel de Certeau's, born of cultural conditions that he describes in *The Practice of Everyday Life* as a "productivist economy" — capitalism plus mass media — relegating "the non-producers of culture" to a pervasive margin, a silent majority.[58] So-called tactics reside in everyday practices like reading, cooking, or walking, and they work as modest victories or tricks that deviate from the imposed (strategic) order of an author's meaning, another cook's recipe, or a planner's built environment. In these terms photocopy machines of the 1960s and 1970s became sites of cultural production — of documentary reproduction as cultural production — that were introduced as corporate strategy and yet quickly became broadly available to a multiplicity of tactical uses and users. By focusing on Daniel Ellsberg, who Xeroxed and leaked the Pentagon Papers, and on John Lions, who wrote and Xeroxed a well-known guide to the UNIX operating system, this chapter addresses admittedly idiosyncratic users and uses, yet it does so in confidence that idiosyncrasy points inversely if speculatively toward more typical uses and the conditions that structure them.

More clearly than either job printing or scholarly mimeographs and microforms, photocopied documents form the site and substance of modern bureaucracy, part of its strategic repertoire. Ellsberg in particular works as something like a latter-day addition to the colorful cast of historical actors described in Ben Kafka's *The Demon of Writing: Powers and Failures of Paperwork*. Like Charles Hippolyte Labussière, for instance — who is said to have saved hundreds of people from the guillotine by surreptitiously destroying the relevant paperwork during the Reign of Terror — Ellsberg risked much in acting against the Vietnam War. He worked from a position inside the machinery of state — or at least inside the scriptural economy of the military-industrial complex — while he did so in ways that gestured as much toward the contradictory "psychic reality" of bureaucracy, in Kafka's terms, as toward its specific material features.[59] Whereas tactics à la Labussière involved the misdirection and destruction of documents, Ellsberg's tactics involved their proliferation through photocopying.

Photocopies emerged within 1960s and 1970s bureaucracy as modest sites of self-possession — one could finally keep one's own files — at the same time that they hinted at the inevitable documentary logic of accountability — copies collected and saved, just in case — that helped beg the question of openness or transparency that proved of particular moment in the era of Watergate and the Vietnam War. Ellsberg aired the Pentagon's dirty laundry, while on and around college and university campuses, other forms of openness prospered. As if in answer — finally — to the Joint Committee's dreams, library materials entered circulation as photocopies, while coursepacks sidestepped commercial publishing. Against this backdrop, the efforts of Lions and others to install and improve the UNIX operating system — a storied chapter in the history of open-source software — connect emerging digital forms with the photocopied documents that aimed to describe them. Computing was in the midst of what Levy calls its "huge step," a conceptual shift from "seeing text just as an *input* to the computer" to text as "the *primary object* of the user's attention."[60] Digital documents and photocopied or otherwise in-house and "gray literature" software manuals emerged as overlapping and mutually defining textual forms, versioned and versioning in a reciprocating interplay.[61] Thus, even if digital media today make it difficult to recuperate the original meanings of xerography, I argue that xerographic copying ironically worked partly in the construction of digital documents as such.

The biggest difference between digital and analog documents, according to Buckland, is that digital documents exist "physically in digital technology as a string of bits, but so does everything else in a digital environment."[62] Digital documents in this sense have no edges. They are materially, bibliographically the same as the windows that they appear in and the programs that manipulate them, so that "any distinctiveness of a document as a physical form" fades away, and "there is no perceptible correlation between the boundaries of the texts we read on a computer and . . . the display itself."[63] Visual cues and interface conventions help make digital documents legible as such, though there is of course a lot more going on than that when we call a document to the screen. Thinking about the digital environment recalls my earlier analogy between genre systems and word search puzzles. Remember, like words hidden in a random grid of letters, genres get picked out contrastively amid a jumble of discourse because of the ways they have been internalized by members of a shared culture. So documents, for instance, are recognized according to

the context-dependent structures and practices of knowing-showing. For digital documents—as for digital objects generally—the jumble of discourse isn't a two-dimensional grid as much as a three-dimensional one, the layered and diverse writings that recursively make platforms, operating systems, and applications intelligible to each other in an architecture of processes that works to generate the textual event, the "interface effect," that we recognize on screen.[64]

In turning to consider digital documents, chapter 4 focuses on what Wikipedia as of this writing calls "the de facto standard for printable documents on the web," the PDF file.[65] In doing so it admittedly forecloses two orders of complexity, leaving questions for others to pursue. First, I will not be explicitly concerned with the ontological complexity of digital text—in other words, with the question of what digital text fundamentally is. The answer to that question seems on the face of things far from clear, when one considers that some digital text—"code"—is considered "executable," for instance, or that some electronic circuits are printed and ink conductive.[66] Likewise I will not be explicitly concerned with the mutually transitive relations among medium, format, and genre. The PDF is an interesting digital format partly because it is so completely sutured to the genre of the document: all PDFs are documents, even if all digital documents are not PDFs. It turns out that PDF technology is an outcome of a second, related "huge step" in computing, the "elegant idea" that the texts forming the primary object of the user's attention might be represented not directly as strings of characters or maps of pixel values but indirectly as programs, the execution of which will generate pages of a document either on screen or at the printer.[67] Chapter 4 asks how the know-show function has been mobilized in the design and implementation of the PDF format. What are the assumptions about documents that have been built into PDF technology, and how does using that technology help reinforce or reimagine the document? How is the history of PDFs a history of documents, of paper and paperwork, and how is it also a history of the computational and corporate contexts from which PDF technology emerged? If the PDF format is disparaged as clunky and backward looking—as it is in some circles—what's so new or special or consequential about it? How should we explain its success?

Readers will have gleaned that each of the episodes of media history presented here is concerned with a relatively brief moment in time as well as with events that occurred primarily, although not exclusively, in

the United States. This remains the context that I know best as well as the one for which published and archival sources — my documents — have been most readily at hand. The brief chronological windows and the jumps between them represent both a more calculated methodology and a strategic appreciation of media archeological perspectives that have been so productive — and so fashionable — in recent scholarship.[68] I have aimed to make each episode exacting in its detail while also reaping the benefits of its contrastive separation from the other episodes. A contrivance, perhaps, yet one that productively displaces to the level of method the breaks or ruptures in media historical narration that must forever warrant our concerted critical attention: every supposedly new medium is only ever partly so. Being self-conscious about the ways that historical narratives work is essential to media studies, especially because of the reflexive burdens of studying documents by means of documents, for instance, or of understanding media from within an always already mediated realm. As W. J. T. Mitchell puts it, none of us "only think *about* media, we think *in* them," too.[69] Just as Romanticism and its afterglow have had us "dreaming in books" lo these many years — to use Andrew Piper's resonant phrase — so we have been thinking variously in the handwritten, typed, mimeographed, and photocopied document, some of us across generations as well as throughout lifetimes.[70]

Each chapter works by recuperating documentary forms and actors who have been neglected by media studies, arguing by example that the field must consider "little tools of knowledge" in addition to larger, glitzier — that is, more intensively capitalized — forms.[71] Media studies must continue to aim at media, in short, not just "the Media" as such. Organizing chapters partly around unsung and offbeat heroes[72] seconds the work done by Siegfried Zielinski to populate what he terms the "deep time of media" with illuminating dead ends, gee-whizzery, and what-ifs, while it also aligns with Guillory's observation that documents raise "questions about writing in modernity that cannot be answered by asking these question only of figures such as Joyce, Freud, or Heisenberg."[73] One might, it is true, identify certain canonical documents and their authors — the Declaration of Independence? Franz Kafka's office writings? Thomas Edison's papers? — but documents are properly a vernacular form for which Foucault's author function in general does not apply.[74] The compositors, typists, microfilm technicians, and xerographers rendered below may be notable and even noteworthy, but they are hardly authorial in any famil-

iar sense. If I have warmed toward several of my subjects — a talented if hapless printer named Oscar Harpel, an idealistic young historian named Robert C. Binkley, and an antiwar activist named Daniel Ellsberg — this is not to reproduce an old, great-men style of history but rather to deflate it. Harpel, Binkley, and Ellsberg appeal to attention here because each is so charmingly eccentric, if, I argue, revealingly so.

So many of the popular stories we continue to tell ourselves about what we refer to as print are big-boned affairs that rely on gross analogies. McLuhan probably locked this pattern in, with his 1962 account of a "Typographic Man" who is woefully "unready" for the electronic media of his day. Readers today may be shocked at having to slog through so much about classical antiquity and medieval Europe in *The Gutenberg Galaxy*, because McLuhan proceeds with such certainty that letterpress printing in the Renaissance "was an event nearly related to the earlier technology of the phonetic alphabet."[75] The connection starts to seem typological. It has similarly become a commonplace of late to compare the ascendance of digital networks and the World Wide Web with the rapid dissemination of letterpress printing in Renaissance Europe and the supposed emergence of print culture. Clay Shirky, for instance, has suggested that the "mass amateurization of publishing" on the Internet could be likened to the mass amateurization of "literacy after the invention of moveable type."[76] Three analogical revolutions by these lights, one vast historical arc: if one accepts this premise, then the history of the West may be figured as a self-celebrating page, written first in phonetic characters, printed next by movable type, and finally and triumphantly generated and published online. What the media of documents and the fortunes of characters like Harpel, Binkley, and Ellsberg offer instead are a lode of smaller bones to help enrich this tale, and not a little gristle to complicate its tenor. Following documents reveals both the abundant diversity of the scriptural economy and its ever widening scope, as knowing-showing has again and again been worked by new and different means as well as by additional and increasingly diverse actors. Following documents hints further at intricate and proliferating techniques of control, as subjects know and show within and against the demands of an increasingly dense overlay of institutions and institutionalized realms.