
Chapter Three

THE DEATH OF THE AUTHOR AND THE KILLING OF BOOKS: ASSAULT BY MACHINE

When it comes to intellectual property rights and copyright especially, the ability to reproduce, duplicate, and, of course, copy is a given, but far from uncontroversial, feature. Even translation, as we saw in the previous chapter, occupies the imagery of the derivative, a copy made from an original.¹ As something to be revered and later, feared, the act of copying is appropriately enough also part of the history of literature. Thus, material and immaterial changes go hand in hand: the meticulous transcription by hand taking place in convents and monasteries during the Middle Ages morphed into the mass production of the printing press. The praise once bestowed for centuries on those who were able to recast old traditions and legends into new forms, became overshadowed by a romantic author and a modernist aesthetic where search for innovation and novelty took centre stage and any hint of imitation was to be abhorred. Drawing on the complexities of copying, my primary goal in this chapter is to consider what happens to authorship and intellectual property rights as they *meet the machine*. The Internet is perhaps the most current example of how reproduction of content is facilitated on an unprecedented scale by technology. At the same time, intellectual property regimes put in place years before anyone could even consider the possibility of such a global network lag behind. Consequently, a number of ever-increasing volumes produced within widely disparate academic disciplines have addressed the possible fate of the book and the text, as well as the ramifications posed by the World Wide Web in respect to free speech, access to information, and ownership.² However, for reasons of obvious shortsightedness, it remains difficult to ascertain to what extent these predictions of dystopia or utopia are realistic. Because of this, and because the fundamental im-

portance of the technological impact in respect to intellectual property still remains to be considered, I have chosen to turn my attention to a technological revolution every bit as significant for intellectual property rights as the Internet, albeit one that offers the advantage of historic hindsight: the copier. Taken for granted in schools, offices, and even homes, we seldom consider that the photocopier once caused the same anxieties to surface in respect to print culture as the Internet gives rise to today. Controversial enough to be banned in the Soviet Union until 1989, the most problematic aspect of what is now a cheap and readily accessible piece of office equipment is perhaps its capacity to be a 'killer of books' – as the small ad on the back of French publisher La Decouverte's books suggests in the form of the portentous warning: '*DANGER. Le Photocopillage tue le livre.*' The Internet may be the most advanced device of reproduction the world has seen to date, but it was the copier that brought both author and text into the Information Age.

I

Perhaps it was to be expected that the man who invented the technology that later materialized as the copier, did so because of inconveniences he encountered as a patent attorney. Chester F. Carlson, whose grandparents emigrated from Sweden, was born in Seattle on 8 February 1906.³ Both parents were sickly and the family moved around until they finally settled for a warmer climate in California. Ellen Carlson died of tuberculosis in 1923, leaving seventeen-year-old Chester to care for his father. While he managed to earn a Bachelor of Science degree in physics from the California Institute of Technology in 1930, this also landed him in debt during the Depression. Desperately trying to find work he sent out eighty-two job applications, none of which resulted in an offer. Carlson finally found employment at the laboratory of the Bell Telephone Company in New York, but was laid off as the Depression worsened. He went on to secure a position at the patents department of the electronics firm P.R. Mallory, attending night school at the New York Law School between 1936 and 1939 to become a patent attorney. When he ended up as head of the company's patent office, his dealings with the many documents and drawings needed for patent applications made him realize that there was always a shortage of copies. The process of making duplicates was laborious; either they were photographed, or they had to be copied individually and then proofread carefully.

The need for facsimiles of correspondence and office documents was not recent; it had been filled by hand by copy clerks, copiers, or scribes until the mid-nineteenth century. Until the 1870s there were basically only two options available if you wanted to make numerous copies: either use the services of a commercial printer, or buy a small printing press. Nonetheless, there were several attempts to invent useful copying devices. James Watt patented a copying press in 1780, which could, either by roller or in a screw-down version, allow for reproduction of writing on a damp sheet of thin but durable tissue paper that was placed under pressure. Thomas Jefferson was known to have liked Watt's press and used it during his stay in Paris, but he favoured the polygraph. Today more associated with the lie-detector tests seen in movies, the polygraph was a sort of multi-pen apparatus, in which the writer would use one pen as a master pen, and then by a set of mechanical arms another pen would simultaneously copy the writing. Jefferson relied on it for many years but it was never successfully marketed and sold in the United States.⁴ The stylograph with carbonated paper followed, rendering, as Jefferson wrote, a room 'pestiferous' with its smell.⁵ Because it was both messy and unreliable, use of carbon paper did not really advance until the typewriter became a fixture in offices and carbon paper came coated on one side only. Stencil duplicating machines were launched towards the end of the nineteenth century; Gestetner introduced the first self-inking stencil duplicating press in 1890; rotary duplicators first came on the market in 1898.⁶ Nevertheless, the question of how to make single copies that would be of use to corporations as well as individuals was still not solved by the 1930s.

Trying to come up with a solution to his copying problems, Chester Carlson began in 1935 to spend time at the New York Public Library, poring over scientific articles. He turned his attention to the field of photoconductivity, setting up his laboratory in the kitchen of his Jackson Heights, Queens, apartment. A number of failed experiments later, his wife suggested that he instead use an empty room in the back of a beauty parlour owned by his mother-in-law in Astoria, Queens. Together with an unemployed refugee physicist from Germany named Otto Kornei, Carlson managed in 1938 to successfully complete an experiment in what he would call 'electrophotography.' First he wrote the now famous date and address '10-22-38 ASTORIA' in ink on a glass slide; then a metal plate coated with sulfur was rubbed with a cloth to give it an electrical charge. He positioned the slide against the plate, placed both under a powerful lamp for a few seconds, removed the

slide, and sprinkled powder on the plate. His inscription appeared. To finish off the experiment, waxed paper was pressed against the plate, and the image transferred to paper.⁷ While the process would require many more years of additional refinement before it could be put to commercial use, the technique he perfected that day basically remains the same today in modern photocopying.

Between 1939 and 1944, more than twenty of the largest U.S. companies turned Carlson down when he approached them with his invention, including IBM, Kodak, General Electric, and RCA. Continuing to work for P.R. Mallory, Carlson finally succeeded in soliciting the interest of one investor: the Battelle Memorial Institute, a non-profit organization funding technological research. In 1944 Battelle agreed to help him develop his invention by extending \$3,000 for research and the rights to 75 per cent of royalties.⁸ Three years later, in 1947, Battelle signed a licensing agreement with a small Rochester company by the name of Haloid, giving them the rights to the basic patents in return for an 8 per cent royalty on the proceeds. From the same town as the better-known Kodak, Haloid too dealt in photographic products, and their investment in xerography was a major gamble. In 1948, the name 'Xerox' was trademarked, and xerography – combining the Greek word *xeros* for 'dry' and *graphis* for 'writing' – replaced 'electrophotography' as a description of Carlson's process. The first of Haloid's copiers, the Model A, known as the 'Ox Box,' came on the market in 1949. Not particularly effective, it took a total of thirty-nine manual steps in order to perfect a copy,⁹ following instructions in a manual of painstaking detail:

Dry the plate surface by striking it lightly and briskly with a clean, dry, untouched portion of cotton ... With a spoon, carefully spread one-fourth of a teaspoon of XeroX Toner over the developer ... When mounted in the process tray, the four tabs of the electrode should protrude no more than approximately 1/64" above the level of the side gaskets, nor should they go below the side gasket.¹⁰

The Model A was a disaster. Fortunately but quite unexpectedly, it could still be used as a maker of paper masters for offset printing presses. Continuing to improve on xerography, Haloid realized that the 8 per cent Battelle share might in the future present a serious impediment to their chances of funding continued research. In return for stock that was to bring many millions to Battelle, effective from 1 January

1956, the Institute conferred all rights to the basic xerography patents to Haloid.¹¹ In 1958 Haloid officially changed their name to Haloid Xerox; in 1959 all worldwide patents on xerography were purchased from Battelle, and in 1961 the company – inspired by the way in which the name Kodak was constructed around the same first and last letters – became Xerox. In the first ad presenting the new corporate name in *Fortune* in July 1961, Xerox emphasized that there was nothing ancient and Greek about the corporation, stressing instead its commitment to meet what already then was seen as ‘the sheer mass of information.’¹²

Chester Carlson became a consultant to Xerox but was never involved in its day-to-day business. His 40 per cent share of the Battelle royalty had made him a millionaire whose 1964 royalties amounted to 3 million dollars and increased by circa 1 million a year. Most of his substantial private fortune was however donated to charities and universities.¹³ He died while watching a movie in a New York theatre on 19 September 1968.



Xerox’s first major breakthrough came with the launch of the model 914 – so called because it could copy sheets as large as 9 by 14 inches – which was first shown to the public at the Sherry-Netherland Hotel in New York on 16 September 1959. Two copiers were on hand that day. One caught fire.¹⁴ When the 914 was scheduled for its first live television appearance, the print proved so faint that it did not even register for the cameras. Since there was no toner to be found in New York, some had to be flown in from Rochester, arriving five minutes before the demonstration was to air.¹⁵ The unfortunate tendency of Xerox copiers to ignite at inopportune moments forced the company to add fire extinguishers to the machines. Sales representatives declared that it amounted to corporate suicide suggesting to customers that the copiers could cause a fire in the office; they recoiled at the use of the word ‘fire’ under any circumstances. Hence, the fire extinguishers became known as ‘scorch eliminators.’¹⁶ One of those who publicly decried the unstable 914 was Ralph Nader, who claimed that his Washington office machine had caught fire three times in four months.¹⁷ A later model, the 3600–3, would burst into flames in the White House.¹⁸

Although Xerox was doing well on the copying market with its Copyflo, a machine that enlarged prints on a continuous roll from microfilm originals introduced in 1955, there were also serious com-

petitors in the field. 3M had their Thermo-Fax unit, Kodak the Verifax, and a number of other companies tried their hand at various copying processes. Although these machines were small enough to fit on a desk, and also modestly priced at around \$500, they came with major drawbacks. Either they were somehow limited in function – the Thermo-fax did not reproduce all colours – or they involved time-consuming and careful handling of the documents. Neither machine made copies that were permanent, nor could they operate without specially treated and expensive paper.¹⁹

The 914 revolutionized copying for several reasons. Despite the fact that it was huge – in the beginning only five machines a day, each the size of a small truck weighing over 650 pounds, rolled off the assembly line – it was marketed as a machine anyone could handle. In a 1960 TV commercial promoting the 914, Xerox made their point by showing a businessman sitting at his desk. He asks his daughter Debbie to make a copy of a letter. When the little girl returns with two papers in her hand, he wants to know which one is the original, to which she replies, 'I forget!' One angry viewer demanded proof from Xerox that Debbie was not in fact a midget, since the idea of a small child operating such a complicated piece of machinery seemed out of the question. Fuelled by the Debbie success, Xerox relied on a trained chimpanzee to demonstrate the 914 in their next commercial. This time their strategy backfired. Calls poured in from irate customers the day after its premiere. Secretaries who normally operated the machine complained that they had found bananas on the copiers and were ridiculed by male employees who argued that since a monkey could do the job just as well, why did they have to pay the women salaries? The commercial was pulled and never reappeared.²⁰

'Anyone is an *expert* the first time he uses the XeroX 914 Copier,' trumpeted the glossy, colour foldout advertisement introducing the 914 in *Fortune* in March 1960.²¹ That the 'he' was somewhat of a misnomer is proven by the print ads, where all those working with the copier tended to be women. Confirming the secretary as the true mother of the machine, John Brooks wrote in a 1967 article for the *New Yorker*; after having spent a day in the company of a 914 and its female 'caretaker,' he could report that he had witnessed the closest relationship between a woman and a piece of office equipment he had ever encountered. He ruminated that the copier 'had distinct animal traits: it has to be fed and curried; it is intimidating but can be tamed; it is subject to unpredictable bursts of misbehavior; and, generally speaking, it responds in kind to its treatment.' The secretary Brooks interviewed went on to say that she

had been warned by the Xerox technical representative not to be afraid of the 914 because the machine would sense her fear and, like a mischievous child, misbehave.²² Portrayed in a 1963 *Fortune* ad as a costume-clad, crew-cut young man with a briefcase, the Xerox man was, according to the company, not only 'educated,' but well prepared to change the toner, fix the so-called mispuff that tended to cause paper jams, and generally oversee the performance of the copier.²³ From the start, the copier had almost taken on a life of its own, and since many within the corporation took the view that it was a contraption 'mere mortals could not develop,'²⁴ it needed to be treated like a living entity. In the movie *9 to 5*, the copier was used to make precisely this point of the unpredictable and unstable relationship that existed between humans and machines. Playing a divorcee employed outside the home for the first time, Jane Fonda is depicted in one scene in the 'Xerox room,' about to oversee what looks like a simple process of copying. Without apparent reason, the machine goes berserk, sending copies flying across the room. Failing to end the chaos, the distraught woman is forced to watch her chauvinist boss turn the thing off with the confidence of one who knows the key to comporting oneself in the presence of technology: not to be scared. Perhaps she had her showdown with a Xerox 9200, a copier marketed in a highly successful series of TV commercials known as 'Brother Dominic.' These featured a monk – Brother Dominic – who, when Father Superior wants him to produce five hundred more sets of the illuminated manuscript he has been toiling with turns to the 9200 for help.²⁵

In addition to the fact that the 914 could be operated by almost anyone, causing unlimited copies to flow at the simple push of a button, these copies came on ordinary paper. For several years, the ease of use and the idea of making a copy so close to the original as to make it impossible to see the difference between them was an important advertising strategy. When the company in a September 1963 advertisement in *Fortune* displayed a Picasso original next to a Xerox copy of the same picture asking readers if they could spot the original, they promised anyone who guessed correctly a Xeroxed copy of the painting.²⁶ Drastic but effective, it was the culmination of a number of similar ads on the same theme. All stressed that the copier could manage important originals without destroying them, that the copies were almost as good as the originals, and that all of this wizardry was within the reach of everybody.

The second decisive element in the success of the 914 was the pricing policy. In fact, the 914 was so expensive that the company was in

serious doubt that it could be sold in any numbers at all. Early versions reached \$4,000 in production cost alone and in 1966, it came with a retail price tag of \$27,500. In a stroke of genius, the company came up with a metred pricing-policy, based on the licensing, not the buying, of the machine. For \$95 a month for the first 2,000 copies and 4 cents per copy thereafter, the idea was to charge for copies, not for the machine.²⁷ That way, not only did Xerox own the machine and therefore the depreciation and write-offs that came with ownership, they were secured a steady income long after it had paid back its initial cost. In large part, this became one of the reasons for the subsequent success of the copier, since no one could have anticipated that the number of copies made by those who rented the machine would explode in the years to come.

Answering the hitherto unknown needs of the market, the 914 was used to produce not 2,000 copies a month but rather 10,000, and some went as high as 50,000 copies a month.²⁸ People made not only copies from originals as Xerox had expected – and built much of its advertising on – they made copies of copies.²⁹ Such unexpected possibilities did the copier present in terms of dissemination of information, that when *Business Week* wrote about Xerox at the time of the 914 launch, they felt compelled to spell out to their readers what possibilities the copier really provided, listing a department store that copied invoices, an importer who copied letters written in foreign languages for further distribution to its banks, and a Detroit engineering firm, copying specifications sheets.³⁰

The number of copies made annually in the U.S. went from some 20 million in the mid-1950s, to 9.5 billion in 1964, and 14 billion two years later.³¹ Xerox, who had hoped to place 5,000 units of the expensive and cumbersome 914 within three years of the 1960 launch, had instead shipped 10,000 by 1962.³² That same year, when production was up to forty machines a day, there was a twelve-week wait for delivery.³³ What Xerox had stumbled on was a licence to make money, and the company went from sales of \$32 million in 1959 to \$1,125 billion in 1968.³⁴ Profits rose from \$2.6 million in 1960 to \$134 million in 1968. Staff were recruited at a pace of fifty to a hundred people a month.³⁵ What could possibly go wrong?

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Things could and would go wrong. The many patent protections surrounding xerography benefited both Chester Carlson and Xerox,

making it possible for the company not only to prosper during the 1960s, but basically to secure a monopoly on the copier market. However, at the beginning of the 1970s the old patents were beginning to expire and the following years would prove a 'lost decade,' every bit as disastrous as the preceding one was successful.

It began in 1972, when the Federal Trade Commission (FTC) sued Xerox for violating antitrust laws. The FTC claimed that Xerox had 60 per cent of the overall copier market, and 95 per cent of the plain-paper copier market, demanding among other things that the company start licensing off its patents. The FTC suit was not settled until 1975, when Xerox agreed to some of its demands and made an estimated 1,700 patents available to its competitors.³⁶ From 1976 to 1982, Xerox's share of American copier installations dropped from around 80 per cent to 13 per cent.³⁷ In the early 1980s margins plummeted from 70 per cent to 10 per cent.³⁸ So used to ruling the market, the company did not even include formal market share information in its reports. They had always amounted to 100 per cent.³⁹ Hubris reigned as some expected the metre on the back of the copiers to count, not copies, but money forever.

One stunning example of how far corporate complacency would lead was the widespread fear of Xerox engineers of damaging the original document in any way. Subsequently, they were convinced that it was impossible to build a copier in which the original could be fed *into* the machine. When, in the midst of Xerox's crisis Kodak introduced a recirculating document handler in 1976, the Xerox people were incredulous. They simply did not think it could be done.⁴⁰ The Japanese posed another threat, since they not only built better copiers, but did so more effectively and at half the cost. Moreover, the Japanese had targeted the small copier, a mushrooming market Xerox ignored and which proved an immense success.⁴¹

The instability created by these combining factors would also lead to what some consider the worst blunder of all, the missed opportunities of Xerox PARC (Palo Alto Research Park). When Steve Jobs, founder of Apple, was quoted as saying that Xerox could have owned the entire computer industry today, and that it could have been a company ten times its current size, he was no doubt thinking of PARC.⁴² PARC researchers developed the Alto, the first personal computer; constructed the Ethernet; came up with the user-friendly interfaces of menus, pop-up windows, and desktops now so familiar to all computer users; designed the first word-processing programs; developed the laser printer; and even toyed with what was called a 'worm,' or what we

more commonly refer to as a 'virus.' Xerox managed to capitalize on and turn only one of these into a successful product: the laser printer.⁴³ Because of a corporate bureaucracy sometimes referred to as 'Burox,'⁴⁴ internal conflicts, clashes between east-coast and west-coast approaches to technology, Xerox never fully came to exploit the potential for in-house innovations and was left behind when the time came for the copier to be surpassed in its capacity to circulate information by the personal computer and the World Wide Web.

II

In 1966, at the peak of Xerox's success, Marshall McLuhan stated that xerography was the most startling and upsetting electric innovation to date. In his rambling style he went on to describe why what he later would call 'every man's brain-picker'⁴⁵ posed such a tremendous challenge to the status quo:

Xerography is bringing a reign of terror into the world of publishing because it means that every reader can become both author and publisher ... Authorship and readership alike can become production-oriented under xerography. Anyone can take a book apart, insert parts of other books and other materials of his own interest, and make his own book in a relatively fast time. Any teacher can take any ten textbooks on any subject and custom-make a different one by simply xeroxing a chapter from this one and from that one ... [But] Xerography is electricity invading the world of typography, and it means a total revolution in this old sphere.⁴⁶

If we are to understand the copier and photocopying, not only as a tremendous corporate success story during the 1960s, but also as a revolutionary invention promoting textual as well as legal interventions impacting on authorship and intellectual property rights alike, McLuhan's comment sends a revealing message from the past. However, before we look more closely at the copier, it must be said that any technological leap forward – and the copier did represent one such breakthrough – that enhances the possibility for reproduction, and places that capability in the hands of a larger and *different* audience has the potential to impact on *all* functions of print culture and is not only limited to the refinement of reproductive techniques alone. We know that the printing press acted as an agent of change that enabled not only a different and more effective way of manufacturing books, but spurred

changes in ownership, authorship, reading habits, and distribution.⁴⁷ The copier, and now more recently the Internet, must be interpreted in the same light. The most basic of presuppositions regarding long-standing cultural relationships are questioned when we are forced to contend with the definitions of what a book really is, and what it means to be an author, a reader, or a publisher. Such questions are always present within print culture, but they insist on being addressed more directly at a time of drastic technological changes.

McLuhan is obviously concerned about the arrival of xerography and the copier because he expressly singles them out, but he is perhaps even more focused on the consequences of new technology *per se*, especially as it relates to print culture and authorship. He was not the first to worry. In 1935 with the world teetering on the brink of war, Walter Benjamin questioned the modern machine's ability to strip the work of art of its aura. Granted, Benjamin was more interested in the visual than the textual, but his argument did not hinge on that distinction alone. Just as Marshal McLuhan many years later would lament the upheaval of tradition so did Benjamin predict that the mass market and commodity capitalism would sever the ties between the author and the public, mapping out a new territory in which the reader was about to turn into writer at any moment.⁴⁸ This suggests a dramatic revolution in the ordering of intellectual property, as tumultuous and radical a change as when eighteenth-century writers went from primarily considering themselves craftsmen, to promoting and viewing themselves as authors.⁴⁹ Both McLuhan and Benjamin used the machine to suggest that such a reversal of roles was imminent; Xerox relied on commercials and print ads to illustrate the outcome of their prophecies. Since women, children, and chimpanzees could operate a machine that served the purpose of instantaneously reproducing texts, *anyone* could become author and publisher by bypassing the traditional functions of print culture. The copier and its new users collude to *demystify* and to question the roles previously assigned to producer, distributor, and consumer in print culture, roles that until the 1960s mostly had been occupied by men.

While the copier operates as a printing press of sorts, it is still a far cry from actually producing new *books*. The function of the copier is precisely the reverse: it negates the book; it takes it out of the equation. It does so because the technique of reproduction embodied in the copier 'detaches,' as Walter Benjamin writes, 'the reproduced object from the domain of tradition.'⁵⁰ This is a perfect description of a material and

immaterial transformation – you need only visualize the process: place a book or a journal under the lid of a copier, press a button, the light turns on inside the machine, and a few seconds later out comes nothing remotely resembling what was placed there to begin with. Smudged and unintelligible at times, the papers containing the information you need can be, and often are, too dark or too light; with not enough or too much enlargement or reduction; or they are simply not forthcoming at all because the machine is broken, and so on. The copier is the perfect machine for its time because it emphasizes, not form, but content, and because it suggests that authorial power has been placed in the hands of the person using the machine. Both these critical elements in the understanding of the copier can be related to an upsurge in information and an increased emphasis on and awareness of education and knowledge as resources both in political and monetary terms. In his *New Yorker* article on Xerox from 1967, John Brooks succinctly raised the complicated question of copyright, and the potential for the copier to effortlessly reproduce text for swift distribution.⁵¹ He did so by noting that the copier had penetrated libraries and universities to the point where the technology was taken for granted, if not by publishers, then by the public. Therefore, at the time when Xerox's sales seemingly could only go up, and the photocopier became part of the corporate, educational, and public landscape, it was a lawsuit about to happen.

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One of the first cases testing the subversive capacity of the copier was *Williams & Wilkins Co. v. United States*, involving on the one hand Williams and Wilkins – publisher of a number of medical journals – and on the other the United States government through the Department of Health, Education, and Welfare and its institutions the National Institutes of Health (NIH) and the National Library of Medicine (NLM).⁵²

On 17 February 1968, Williams and Wilkins filed a complaint against NIH and NLM, arguing that the library's unauthorized photocopying of articles from journals published and copyrighted by Williams & Wilkins amounted to copyright infringement. The plaintiffs claimed that they faced loss of revenue because photocopying now substituted for subscriptions and they charged that the fair-use doctrine – allowing for the photocopying of certain parts or extracts from books and/or journals for scholarly purposes – never was intended to cover complete works, which was the case in this instance. The defence argued that

NIH and NLM as non-profit agencies was well within the bounds of fair use when they assisted individual researchers with photocopying and that the amount copied was not a decisive factor against the practice. They also stated that the copyright was not, in fact, the publisher's but the author's, authors who had received no financial compensation from Williams & Wilkins, and who furthermore did not object to being photocopied, since they knew how vital it was to gain access to new information themselves. Nonetheless, the 1972 district court decision went in favour of Williams & Wilkins. With the least possible majority of 4–3, the appellate court reversed the decision in favour of the defendants the following year, concluding that the case had failed to prove significant economic detriment to Williams & Wilkins, but that it did demonstrate 'injury to medical and scientific research if photocopying of this kind is held unlawful.'⁵³ Once again appealed, this time to the Supreme Court, an equally divided court of 4–4 meant that the previous ruling would stand.⁵⁴

Williams & Wilkins Co. v. United States had made it abundantly clear that the copier would need to be contended with in legislation. As we have seen from Xerox sales and advertising, the criticism of xerography by McLuhan, John Brooks's long essay on Xerox in the *New Yorker*, and even from the very basis of the *Williams & Wilkins Co. v. United States* case, the impact of the copier and the phenomenal success of Xerox were not in dispute. If the decision in *Williams & Wilkins Co. v. United States* favoured the defendant's interpretation of fair use and sided with the NIH and NLM, part of the reason behind this was that the U.S. Congress for many years had been trying to pass a revision to the 1909 Copyright Act.⁵⁵ At the time of *Williams & Wilkins Co. v. United States* there were simply no provisions in the Copyright Act for accommodating the new possibilities of reproduction provided by the copier, which undoubtedly prompted the court of claims's comment that there was a pressing need for Congress to treat the problems of photocopying.⁵⁶ The same call for a rejuvenation of intellectual property regimes suited to a new digital environment both nationally, regionally, and globally would be brought on by the arrival of the Internet and the information society.⁵⁷

When the new Copyright Act from 1976 became law, section 107 codified fair use based on four factors; the purpose and character of the use (if for commercial or non-profit reasons); the nature of the copyrighted work (factual or non-factual with more leniency for the factual); the amount of the work copied in relation to the whole work (less or

more); and the effect of the use upon the potential market for, or the value of, the copyrighted work.⁵⁸ When, in 1985, another case – *American Geophysical Union v. Texaco Inc.* – provided the battleground for a new confrontation involving the copier and fair use, the legal framework and the mechanisms ensuring intellectual property rights enforcement were therefore radically different from what had been the case during *Williams & Wilkins Co. v. United States*.

American Geophysical Union v. Texaco Inc. involved six scientific and technical publishers who sued Texaco because its in-house researchers had photocopied articles without paying licence fees to the publishers in question. The case came to rest on the example of one such researcher, Dr Donald Chickering, and his copying of four articles, two letters to the editor and two notes, from the *Journal of Catalysis*. While AGU claimed that he was violating fair use, Texaco and several other *amici* would argue that as a researcher who used the articles for his own research, laboratory work, or even for future reference rather than for profit, he was not in breach of fair use. One of the authors of an article Chickering had copied, Professor Schwarz, testified for Texaco, saying that both his colleagues and his students viewed photocopying as an important and essential part of their education, ‘a natural [act] much like breathing.’⁵⁹ As in *Williams & Wilkins Co. v. United States*, the publishers vehemently disputed this ‘natural act,’ and insisted that photocopying hurt business. Two cases, of which *Williams & Wilkins Co. v. United States* was the first, seemed to add support to Texaco’s position on fair use. The second, the famous *Sony Corp. v. Universal City Studios, Inc.*, had on similar grounds ruled that ‘time-shifting,’ that is, private home video recordings of copyrighted material shown on television, taped for later viewing, was to be considered fair use.⁶⁰

Despite these forerunners, the 1992 decision by the United States District Court for the Southern District of New York held that Dr Chickering was in violation of fair use when he copied the articles.⁶¹ From the four criteria set down in section 107 the judgment was weighed as follows; the for-profit motive of the company paired with the fact that the articles were placed in an archive rather than used directly went in favour of the plaintiff; the second criteria, where the nature of the copyrighted material is deliberated, found in favour of Texaco since the texts were factual; on the third count, which considered the amount copied, the court found for the plaintiff since entire articles were copied, and fourth and perhaps primarily, since prior cases had signalled the importance of this last of the four considerations, the court found

that the publisher had indeed suffered financial loss because of lost subscriptions. The decision was appealed to the 2nd circuit court of appeals, where the ruling, despite many interventions on the part of organizations in the library community, prevailed in October 1994. In his dissenting opinion, Judge Jacobs insisted that he viewed Dr Chickering's copying reasonable and well within what fair use was intended to allow for. The fact that the articles were placed in Dr Chickering's file did not contradict their intended purpose of research. Drawing on findings in Bruno Latour's study *Laboratory Life: The Social Construction of Scientific Facts* from 1979, Judge Jacobs argued that 'photocopying of journal articles, and the use of them, is customary and integral to the creative process of science.'⁶²

The publisher's claim of lost revenue due to photocopying was not such a relevant factor as the plaintiff would have it sound, because as he pointed out, the publishers charged a much higher subscription rate for the institutional subscribers, of which Texaco was one. The most interesting contention in his opinion can, however, be read as a blow against the very underpinnings of intellectual property rights. Judge Jacobs noted that the reward from writing for these journals was miniscule, if any. Like the authors involved in *Williams & Wilkins Co. v. United States*, the researchers who published in the *Journal of Catalysis* did not receive a fee or any royalty. Instead, their contribution awarded them another form of capital: tenure, research grants, graduate students, and peer appreciation, a form of remuneration primarily sought not for reasons of economic profit. If it was true that, as Judge Jacobs argued, 'the level of copyright revenue is not among the incentives that drive the authors to the creative acts that the copyright laws are intended to foster' (emphasis mine), then his statement meant a serious blow to one of the fundamental building blocks of copyright, namely that it exists to protect and reward authors in order for them to keep producing.⁶³

Stressing that copyright law is supposed to uphold a balance between a fair return for the author while permitting creative uses of that author's work, Judge Jacobs expressed his fear that what the future would hold was a bloated apparatus of intellectual property protection, something that would only hinder, not ensure further research by putting 'a transactional scheme' in place that 'would seem to require that an intellectual property lawyer be posted at each copymachine.'⁶⁴ Before the case could continue to the Supreme Court, Texaco settled with the publishers, agreeing to pay a seven-figure settlement, plus a retroactive licensing fee to the Copyright Clearance Center, signing also an agree-

ment with the CCC for future licensing.⁶⁵ The Copyright Clearance Center, founded in 1978 to secure and oversee licensing agreements primarily in regard to photocopying, did not exist at the time of *Williams & Wilkins Co. v. United States*, and was now used against Texaco to demonstrate that there was a forum in place by which obtaining a licence for the kind of copying Texaco had engaged in would only be a formality. Judge Jacobs disagreed in his opinion, holding that while these licensing fees undoubtedly benefited the copyright holder (i.e., the publishers), they did not necessarily stimulate creativity.⁶⁶

The third and final case pursuant to the copier is *Basic Books, Inc. v. Kinko's Graphics Corp.*, where eight publishers sued the photocopying shop chain Kinko's for printing so-called course packs for use at universities. Since the mid-1980s Kinko's had been offering a program they called 'Professor Publishing,' which involved copying excerpts from books and making course packs without acquiring permission from the publishers involved. These packs were then sold to students for a profit. Although Kinko's relied on a fair-use defence, the court found for the plaintiff, and Kinko's was enjoined from selling the packs and ordered to pay statutory damages in the order of \$510,000 as well as attorney's fees and costs.⁶⁷

III

The differences between these three cases are evident. *Williams & Wilkins Co. v. United States* as well as *American Geophysical Union v. Texaco Inc.* revolved around the copying of specific, individual articles for use in a research or educational environment. While also intended for educational purposes, the copying at issue in *Basic Books, Inc. v. Kinko's Graphics Corp.* instead involved the multiple copying of chapters and articles for subsequent 'course-packaging' and resale for profit. The cases were also judged differently, partly on the basis of the for-profit motives of Texaco and Kinko's as opposed to the non-profit agencies of NIH and NIM.

What is most striking about all three is, of course, the common denominator setting off the complaints to begin with: the copier. Furthermore, all of them implicate research institutions, libraries, and universities, thus squarely setting the problematics within an expanding and increasingly important realm of information and knowledge. All three cases consequently problematize the relationship between the uses of content and the owning of it, establishing a gap between the

interests of two major players in print culture, publishers on one side, and libraries and universities on the other.⁶⁸

I want, however, to stress one shared characteristic that I think is the most crucial: the power of the copier to act as an instrument of selection and sampling. In *Williams & Wilkins Co. v. United States* as well as in *American Geophysical Union v. Texaco Inc.*, the publishers emphasized strongly that a loss of revenue occurred because instead of first subscribing to a journal and then reading it, researchers were photocopying articles from journals in-house and then reading them (or not). The court did not find evidence of financial detriment in the first case, but in the second the majority did. However, the most important aspect of Dr Chickering's behaviour was that he proved how essential it had become to *select* within the 'mass of information' Xerox so aptly had identified many years earlier and that faced him daily as a researcher. He needed the *Journal of Catalysis*, not in its entirety, but in bits and pieces. The Kinko's case only takes this particular characteristic to the next level. Making the course-packs under the 'Professor Publishing' program constituted precisely the kind of activity McLuhan predicted in the quote above when he stressed: 'Any teacher can take any ten textbooks on any subject and custom-make a different one by simply xeroxing a chapter from this one and from that one.'

The copier enables the swift compiling of information; the collecting of one chapter here, another one there, not only in order to simply redistribute them to a class of expectant students, but to recombine them and make a new, more useful tool. In one stroke, the copier makes the old author extinct, while at the same time laying the foundation for another to appear. To compile, to combine, to accumulate, to 'sample,' is a new form of authorship that proved to be the copier's most transgressive function. Not only did it make copies, it reproduced authors. The capacity of 'sampling,' was identified by Roland Barthes in 1968 when he spoke of the ability to 'mix [mêlé] writings,' as the only true power that the modern author possessed.⁶⁹ Although the consequences of the 'author'-compiler are clearly present in *Basic Books, Inc. v. Kinko's Graphics Corp.* to a much larger extent than in the other cases, it is equally clear that while poststructuralist thought might allow and even give the author-compiler a justification for existence, the legal framework does not condone such forms of authorship, a problematics I will return to in chapter 5 when discussing intellectual property rights in relation to traditional knowledge and folklore. That a new value is created by the recombination of existing material is not self-evident in

any way.⁷⁰ Sampling is at the base of hip-hop music, the file-sharing activities on the Internet, and the downloading and subsequent burning of new, individually selected and compiled CDs, all of which are driven by the same logic as we see enabled by the copier.⁷¹ It makes sense that devices such as the copier and the MP3-player emerge in a knowledge-based society, not only because technology makes them possible, but because they are directed at the selection and reconstruction of information.

As the copier made the exchange of information possible in a radically new way and opened the floodgates for its dissemination, it became increasingly obvious that such a lucrative commodity would necessitate some form of control. As soon as we see new technological modes enabling access, we will see a direct response on all levels to delimit and police that possibility. Such strategies include not only revisions to most treaties and national laws, but also the emergence of new agencies, in this particular case so-called Reproduction Rights Organizations (RROs), that licenses reproduction of copyrighted material on a collective, rather than individual basis. RROs were specifically constructed to meet the problems of photocopying, but the principle of collective administration of rights is much older and generally credited to the difficulties involved in ensuring proper control of music performances. While the International Federation of Reproduction Rights Organizations (IFRRO) is the international umbrella organization for RROs, the French Société des Auteurs, Compositeurs et Éditeurs de Musique (SACEM) is generally regarded as the first example of such a *collective administration organization*.⁷² Reproduction rights were not secured as a minimum Berne Convention right until the 1967 Stockholm Revision Conference,⁷³ and different nation-states have treated the dilemma of photocopying differently. In Germany, a statutory levy based on reproduction capacity is imposed on the sale of all reprographic equipment and another levy, based on the number of pages reproduced, is imposed on the operator.⁷⁴ In Sweden, the Swedish Writer's Union uses the revenues collected from licences by the RRO BONUS to administer a special fund called 'Fotokopieringsfonden' (The Photocopying Fund), from which any author and translator may apply for grants once a year.⁷⁵

Thus, the copier gave us more than the possibility to distribute, to sample, and to create new texts, and more than the possibility to make copies of copies; it also gave us new instruments of control. In 2000 Xerox, the company that once saw itself in the vanguard of building

the 'architecture of information,'⁷⁶ launched a company called ContentGuard, Inc. in cooperation with Microsoft. Developed at Xerox PARC, ContentGuard has designed a Digital Rights Language, XrML (eXtensible rights Markup Language), or, as the company puts it 'a universal method for specifying and managing rights and conditions associated with digital content as well as services.'⁷⁷ Allowing you to access copyrighted material such as music, images, or text on the Internet, ContentGuard epitomizes Marshal McLuhan's 1966 conjecture that 'there is no possible protection from technology except by technology.'⁷⁸ Paradoxically, with the launch of ContentGuard, the company that forty years earlier had produced a machine revolutionizing the diffusion of content, now focused, not on wider dissemination, but on the enhanced protection of the same resource it once helped distribute in an unparalleled manner.