In the 15 years since computers started to appear on the desks of university tutors in the arts and humanities, their most notable effect has been to turn the trickle of paper circulating in university departments into a flood. Rather than exploiting the computer's power to turn paper-text into infinitely copyable, full-text searchable e-text, almost all users filled their rooms with dead trees. We must rethink computer use in academia from a first principle: computers excel at perfect, free copying. Our main concern ought to be getting intellectual content, our 'stuff', in the electronic medium instead of using paper. We must urgently clear our filing cabinets by scanning what we really need and throwing the rest away, and then move on to clearing our bookshelves. Once the majority of our material is inside the computer, we can respond to any request—'May I see that article?', 'What are the essential materials for this course?', 'How many versions of Ode to a Nightingale are there?'—by handing over electronic copy for the questioner to reproduce at will. There are, of course, technical and intellectual property matters to consider here, but we should not pay much respect to the legal opinions currently being given. The most important development in literary culture at the moment is the project by Google Incorporated to digitize millions of books, one arm of which proceeded without checking copyright status with publishers or authors. Currently this project is stalled by lawsuits concerning the nature of 'fair use', but in the long term the power of digital reproduction over print reproduction will necessarily change the law rather than the law holding back the technology.

I'd like to put the recent developments in a long, a very long, historical perspective. When I was an undergraduate student in London in the early 1990s I lived at the top of a 14-floor tower block of what is called in Britain council housing in the East London suburb of Barking. This is one of London's most dangerous and depressed suburbs, notorious for its unemployment poverty and the concomitant evils of violent crime and drug addiction, but the sight from my window made up for that, as I had an aerial view of the ruins of Barking Abbey. For my BA I was studying Anglo-Saxon culture and I knew just how different the Barking at the end of the first millennium was from the Barking at the end of the second, my Barking, and I knew that the reason for the difference was the abbey. Barking Abbey which was one of beacons of learning in 7th to 10th-century Europe. The nuns who ran it were renowned for their great learning, and when the 8th-century Abbot Aldhelm of Malmesbury, the pioneer of Latin verse among the Anglo-Saxons, addressed his difficult prose book De Virginitate to the abbess Hildelith at Barking he made it clear that he wrote to an intellectual equal. Aldhelm was not at all condescending to the nuns of Barking, quite the opposite, he admired their intelligence and learning (Fell 1984, 109-11).

I offer this example of how intellectual culture operated a 1000 years ago because it is so counter-intuitive, it is so not the Barking that Britons know of now. The difference between then and now was those nuns and their books at Barking, and we should notice that they existed as part of a defence establishment: defending an outpost of the new ideology, Christianity, that had swept Europe. Their books were not simply copies of holy writing, but also arguments about, reflections upon, and philosophical defences, of a
belief system. Europe's centres of learning were a defence network against opposed ideas.

In written culture, of course, the most importance difference between the time before the Renaissance and the time after it is the development of the printing press, which we think of as having a strongly positive force. In the literary culture of the Anglo-Saxon nunneries and the medieval monasteries, libraries held precious written artefacts that could be reproduced only by considerable expenditure of physical effort in the scriptorium. The printing press largely destroyed the art of book illustration as it had hitherto flourished, but it gave writing two new and extraordinary characteristics: easy reproduceability and cheapness. The cheapness was not always seen as necessarily a good thing, since it allowed things to be reproduced that would not have been thought important enough in the days when reproduction was expensive. In a letter to his librarian in 1612, the founder of the Bodleian library in Oxford, Thomas Bodley wrote [SLIDE]:

I can see no good reason to alter my opinion, for excluding such books as almanacs, plays, and an infinite number that are daily printed of very unworthy matters and handling, such as, methinks, both the Keeper and Underkeeper should disdain to seek out to deliver unto any man. Haply some plays may be worthy the keeping, but hardly one in forty.

In the event, Shakespeare's plays were considered among the one in forty and the Bodleian bought his play quartos when they came out. But when the much more impressive, imposing, and expensive complete works editions of Shakespeare came out later in the seventeenth century, the Bodleian sold off it cheap Shakespeare quartos. This mistake was regretted in the eighteenth and nineteenth centuries, and the Bodleian went to considerable trouble and expense buying them back. This goes to the heart of the issue about the cost of the medium and the perceived quality of the message, for in Bodley's view [SLIDE]:

. . . some little profit might be reaped (which God knows is very little) out of some of our playbooks, the benefit thereof will nothing near countervail the harm that the scandal will bring unto the Library, when it shall be given out that we stuff it full of baggage books. . . . This is my opinion, wherein, if I err, I think I shall err with infinite others; and the more I think upon it, the more it doth distaste me that such kind of books should be vouchsafed a room in so noble a Library.

If Bodley's librarian had bought any of the the quartos of Christopher Marlowe's play Doctor Faustus available at the time, its title-page would have been unadorned. [SLIDE] The next edition, though, in 1619 had a title-page picture that illustrated one of the play's key moments, when Faustus, seeker-out of knowledge at Wittenberg University, stands book in hand with the devil he has conjured. Faustus rejects the knowledge he finds in books and turns to magic to know more, and to Mephistophiles he pitches his questions about the elements of which the universe is composed and about the movements of the bodies in the heavens. The answers he gets from the devil are, of course, precisely the ones given by his books [SLIDE]:

FAUSTUS
These slender questions Wagner can decide:
Hath Mephistophiles no greater skill?
Who knows not the double motion of the planets?
The first is finish'd in a natural day,
The second thus: Saturn in thirty year,
Jupiter in twelve, Mars in four, the Sun, Venus, and Mer-
cury in a year, the moon in twenty-eight days. Tush, these
are freshman's suppositions!
(Marlowe Doctor Faustus 2.3.50-7)

Ironically, then, Faustus's selling of his soul to the devil to acquire new knowledge was
pointless: he already had it from his university's library books, and any freshman can get
the same.

Over the next several hundred years books got cheaper and cheaper, and yet the
business remained from our point of view the same. [SLIDE] Put crudely, the publishers'
economic model was founded on two bases: i) the accumulation of capital in the form of
expensive printing presses and distribution networks, and ii) the possession of exclusive
rights to reproduce certain content. Even in the early days of the London printing
industry, in the late-sixteenth century before our modern notions of copyright came into
being, the Stationers' Company existed to protect the rights of exclusivity of publishers.

I mentioned that the medieval religious centres of learning were part of a defence
network, and of course since the late 1960s a new defence network, the US
government's Defense Advance Research Projects Agency Network (DARPANET) has
created a new distribution channel that, once it became the Internet in 1983, began to
challenge the publishers' monopoly of the dissemination of the scholarly written word.
With the addition of the HyperText Transmission Protocol and HyperText Markup
Language around 1990, the Internet offered a real alternative to the printed word as a
means of research communication, and it is now hard to see just how publishers can
sustain the dominance of this field that they have enjoyed for a few hundred years.

The point of this whistle-stop tour has been to point out that, and a Marxist like me would
of course say this, technology has been the driver in these historical processes, and that
the associated ideas--especially such notions as copyright--arose after technological
change in order to try to accommodate the new technology's impact within the wider
economy. In Marxist terms, copyright is a superstructural form that emerges from the
economic structure. I shall return later to this point in order to argue that we ought not to
feel ourselves morally bound to the existing principles of copyright. [BLANK SLIDE]

We can say a bit more about the economics of current Renaissance studies book
publishing Academics, whose salaries are in most cases paid by the state, produce
knowledge and write it up in articles, essays, and books. These they give free of charge
to publishers, who (controlling the means of knowledge distribution) disseminate this
knowledge through the world in the form of printings that are sold on the open market.
For most research monographs, these printings are bought by a very few individuals and
by the university libraries of the world who store them in vast collections. What
distinguishes the most prestigious and useful research libraries is the completeness of
their collections: one goes to the Bodleian in Oxford or the Library of Congress in
Washington or the Huntington in Pasadena in the hope that wherever one's reading
takes one--whichever footnote one wishes to follow up--there will be a copy of the work
in that library that can be fetched in minutes.
You do not have to be a Marxist to see that this model of knowledge dissemination—in which people travel to visit one of the many identical copies of a book that are stored in the libraries of the world—is peculiarly archaic. It is not only strange, it is unsustainable in terms of sheer numbers of books sold. I confess here that my knowledge of books is for the most part limited to my field, Shakespeare studies, and my knowledge of how book authoring relates to the career development of academics is largely limited to the British university system. However, at the last meeting of the Renaissance Society of America in Miami, I took a look at the research monographs on sale in the book displays at the conference. Sampling at random, I made quick counts of the numbers of people thanked in the acknowledgements sections of 15 books. I looked at 15 books (an admittedly small sample) and the number of people personally thanked ranged from 20 to 80, with an average of 42. That's a lot of people, and in quite a lot of case the higher end of that scale, 80, comes close the total world sales for a new research monograph in our fields.

In other words, as a means of disseminating one's research outcomes to a group of interested fellow researchers, the print monograph fundamentally fails. Rather than publish a book, an author would be better off going around to each of the people she mentions in her acknowledgements and simply telling them her findings. She would, by that means, in some cases reach more people than buy the book. Of course, a book bought by a library potentially reaches more than one person, but if anyone who wants to get a sense of how often each research monograph in a library is borrowed, most library catalogue systems can supply this information. For older books there is an even simpler test. I recently had cause to read the introductions to the first volumes in the Arden Shakespeare's first series of play-texts, published from 1899 to 1905. I used the copies in the specialist Shakespeare Institute research library in Stratford-upon-Avon, where one would expect the usage of these books to be considerable. In fact in several cases I had to borrow the librarian's book-knife to open the folded edges of the sheets of paper. Having lain on the shelf for 100 years, the introductions to these books were unread until I looked at them.

To return to my main theme, from the point of view of disseminating knowledge the printed research monograph does not work very well. Another reason to reject this means of scholarly communication is that it is based on a decidedly unfair economic model. Why should universities give their research to publishers only to have those publishers sell it back to them? It remains to be seen whether publishers can retain control of journal-article dissemination. It is a big market, so they will try. On the moral issue, though, the case is unanswerable: since knowledge is generated in the universities and we have the technical means to preserve it and to disseminate it, we ought to simply give away our work via Institutional Repositories. We are already effectively giving it away to publishers, and it is hard to see why we still do so now that the means of production and distribution have been radical overhauled by technology.

[SLIDE] The nuns of Barking Abbey were custodians and generators of knowledge in 8th-century Europe, and with relatively few books they were of course eager to receive Aldhelm's text. With their technology, before easy copying by print, consulting the knowledge meant going to one of these centres of learning. Print technology replaced this model of knowledge dissemination with one in which multiple identical copies of a book were lodged at key sites across the world, and that model served us well for a few hundred years. We now have the capacity for a new model, in which the knowledge again is lodged where its created—in the centre of learning—and identical copies sent out
virtually instantaneously to wherever in the world they are wanted. This can only be a good thing. [SLIDE]

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What should an academic do about all this? My answer is that, as professionals morally charged with the maintenance and dissemination of the literary part of our cultural heritage, we should 'pirate' as much as we can. That is, we should wherever possible digitize resources that we use and share them, and also share digital resources that we have purchased, and all without regard for copyright. It is no exaggeration to say that the new media are fundamentally altering the nature of property within late industrial capitalism, and that old notions of ownership simply do not apply in the new situations. If this sounds like reckless talk, it is worth noting that no-one in academia has ever been prosecuted for breaking the old licensing rules using the new media, and I suggest that we ought not allow ourselves to be cowed by legal opinions (for which our employers pay a lot of money) that inhibit our copying of the materials that we use in teaching and research. The very impermanence of online resources puts us under a moral obligation to pirate as much as possible, because we cannot rely on the materials surviving any other way.

To see why not, take the example of the British Broadcasting Corporation's (the BBC's) splendid LaserDisc project in the 1980s, which aimed to create a new digital Domesday book recording life in the United Kingdom 900 years after the first Domesday Book. The resources assembled for this project are effectively lost to us all because as a standard for dissemination the LaserDisc and its associated home computer, the Acorn/BBC micro, are incompatible with the standard computer systems in use today. If piracy of materials from the project had been widespread--that is, if users had possessed the technical means to violate their licence conditions by copying what they wanted--most or all of the raw material of the project would be available to us in some form.

This is not wishful thinking on my part: we have a clear precedent for it. As is well known, the BBC routinely wiped and reused tapes of radio and television programmes from the 1950s and 1960s, and in many cases the only surviving copies are illegal pirated recordings made off-the-air by listeners and viewers and stored at home. The BBC is now grateful to receive copies of these illegal recordings to fill the extensive gaps in its broadcasting archive. On a personal level, I'm sure I'm not the only person whose list of publications includes an article commissioned for an academic website that no longer exists. In my case, the I only hope that (contrary to the terms of use published on the site) people did copy material from the Arden Shakespeare's now defunct ArdenNet website, else I'm the sole possessor of an text that was once widely available and that has been cited in more than one printed book.

In a world in which Google is routinely scanning books without their authors' permission and in which universities are seeking to put publishers out of business and make themselves repositories of knowledge in electronic form and in which large public institutions have shown themselves to be unreliable custodians of data, it would be an absurdly self-denying gesture for academics, the source of all this knowledge, to pause before copying materials and ponder the copyright position of their acts.

I do not suppose that I will be able to convince many people to simply stop worrying about copyright. I do, however, see some straws in the wind that make me optimistic.
Institutional Repositories are one such straw. Another came to me entirely by surprise the other day. I mentioned self-archiving as one of the routes to Open Access, and a few years ago I started to put on my personal website copies of everything I had published, with the exception of the very latest book, chapter, or article about which a publisher might complain that I was hurting their business. As I have explained, I now see less reason to worry so much about publishers’ income, but of course like everyone else I cannot, in this transitionary phase, afford to alienate publishers since my career progression depends on them.

But out of a blue the other day a colleague, Julian Wolfreys, sent me the PDF of the entire text of his next book and asked me to make it available on the university’s virtual learning environment so that all our students could read it ahead of publication. He put no provisos, no qualifications, on this: he just wanted every student to have a copy. Now, Julian has written an awful lot of books and I dare say that his career progression is secure without this one. What struck me was his simple act of generosity: he just wanted people to read his stuff and had no thought for potential barriers. I hope that that spirit, the spirit also of Aldhelm giving his book to the nuns at Barking, will prevail in the future of the electronic book.

Works Cited