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MOOCs and Open Educational Resources:

A Handbook for Educators

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PREFACE: About this Handbook

MOOCs and Open Educational Resources: A Handbook for Educators is being made available for university faculty, educators, and educational producers involved in producing online courses. It is hoped that some utility may be found in its pages by all kinds of readers, whether one is a staff videographer or a chaired senior faculty member or a freelance video editor, or in any position around and in between.

The structure of this Handbook follows the key stages of video course production, with analysis and support at its core dedicated to methods of keeping video content free through all the stages of course pre-production, production, post-production, and distribution. The Handbook also provides some notes on the history of online course production and Open Courseware (OCW) and some thoughts about the future of educational video.

There is no doubt now that the video production community with new stakes in education is growing, as is the educational community with new stakes in video production. Books will forever be important, and in-class, in-person instruction will forever be as essential to effective teaching as it is to parenting, but video has become the dominant communications medium of many of our lives, and screens—computer screens, cell phone screens, and tablets—the new, dominant form of information transmission.

With the growth of educational video production as a field accelerating, we think several opportunities might be emerging for further work:

- Producing and showcasing freely licensed MOOCs. It would be good to see the field of educational video production—parts of the field, or the field as a whole produce more educational video explicitly under free licenses, and with a modern open educational resources (OER) model in mind. Early readers of this Handbook in manuscript noted that it would be helpful for educational video producers and funders now to "get a real price tag on open." How do we get to know that producing freely licensed content costs \$XYZ per hour more (or less) than video that is in some way locked down? The educational video production community can do this by dedicating itself to producing new MOOCs on essential topics under free licenses—and carefully documenting the results!
- Making OCW compliant with Open Educational Resources. Several philanthropies—including original funders of OCW—have begun to look at Open Courseware and said, in effect, "What would be truly extraordinary is if all this content were available under free licenses." OCW, from what we

know and see today, did not go far enough, for a variety of reasons. Now MOOCs and other educational video appear to be stopping even shorter. The original license document that OCW faculty were asked to sign at the start of the OCW movement often included some variation of language stipulating a noncommercial restriction. Our work ahead might involve correcting this dated language across the older agreements governing OCW use and reuse—perhaps as many as 3,000 times—while, again, carefully documenting the process. The television and film business does this all the time, re-clearing programs for DVD release, online release, mobile distribution, new geographical territories, and more. It's not difficult to do!

Systematically populating Wikipedia with educational video. Much more
educational video, especially Open Courseware, should be cut and customized
and distributed across the articles in Wikipedia, in many ways its ultimate
logical home. Work toward this goal is described in the author's earlier
guidebook, "Video on Wikipedia and the Open Web: A Guide for Cultural and
Educational Institutions" (online at: https://outreach.wikimedia.org/wiki/
Bookshelf), and is now seriously under way.

MOOCs and Open Educational Resources: A Handbook for Educators is extracted from the larger Columbia Manual of Video Style the author is finishing for publication, also with Hewlett Foundation support. The Handbook, though, is specifically addressed to the challenges—and rewards—of sharing educational video designed for MOOCS. As a Handbook for producing video as open educational resources, it is rich with practical information for faculty and producers—and it discusses in a broader sense what rights and obligations all of us as educators may have in sharing the knowledge we have. And true to our own advice, the Handbook is being published under a free license, and we hope it see it used and reused—and revised and updated—over time.

To fix textbook licensing regimes and research publication regimes and other closed areas of vital educational significance is urgent now. Fixing video, too, is becoming urgent, especially at the university level. Sanjay Sarma, Director of Digital Learning at MIT, tells his audiences that we-educational and cultural institutions-are "all sort of Disney, and Sony, and MGM-we produce movies" (see footnote 50, inside). We owe it to ourselves to recognize the screen and video on the screen as an important delivery medium for education in the 21st century. We should recognize the opportunity we as a community have now to figure out free licenses for screen-based media and act before educational video goes the way television, film, publishing-and school textbooks in particular. We believe this Handbook will help.

October 6, 2016

I. INTRODUCTION Open Courseware: The Prequel

When the Open Courseware movement first started—Its Big Bang? Maybe fifteen years ago, in June 2001, when Mellon Foundation president William G. Bowen, Hewlett Foundation president Paul Brest, and MIT president Charles M. Vest announced the start of the grand initiative at MIT¹...—our understanding of rights and licensing and the full range of opportunities for accessing and sharing knowledge was, with 20-20 hindsight, at least, as primitive as a coelacanth. The word "open" in Open Courseware and in "open educational resources" notwithstanding, we did not know how to fully share knowledge online, nor did we know, as we know now, how to permit, license, and further facilitate the full and free use, reuse, and remix of content, video especially.² The universe, back then, was young. It would be two years before Creative Commons licenses, also founded in 2001, would come to grace a million works.³ It would be four years before a YouTube video would garner a million the English-language article.⁵

Today, 15 years later, an entirely new order of magnitude is required to calculate the extent of online sharing and the growth of the commons. Wikipedia and its sister projects have seen almost 3 billion edits; the encyclopedia clocks more than 10 edits per second now—20,000 articles per month, worldwide. English Wikipedia alone sees 800 new articles posted per day.⁶ Creative Commons now has more than 1 billion licenses in circulation. CC-licensed works were viewed online more than 100 billion times in 2015

- 3 https://stateof.creativecommons.org/2015/; https://stateof.creativecommons.org/2015/data. html#from-research-to-cute-cat-photos-the-commons-offers-a-treasure-trove-of-content; https:// creativecommons.org/weblog/entry/46712/
- 4 About the soccer star Ronaldhino (https://twitter.com/nikesoccer/status/635857408238026752).
- 5 About a train station in Scotland (https://en.wikipedia.org/wiki/Jordanhill_railway_station).
- 6 https://en.wikipedia.org/wiki/Wikipedia:Statistics; https://en.wikipedia.org/wiki/ Wikipedia:About; https://en.wikipedia.org/wiki/Special:Statistics; https://en.wikipedia.org/

^{1 &}quot;Mellon, Hewlett Foundations Grant \$11M to Launch Free MIT Course Materials on Web," *MIT News*, June 18, 2001, online at: http://news.mit.edu/2001/ocwfund

² In 2007, six years in, Dan Atkins, John Seeley Brown, and Allen Hammond published for the William and Flora Hewlett Foundation, the major funder of OER, an authoritative working definition of open educational resources as "teaching, learning, and research resources that reside in the public domain or have been released under an intellectual property license that permits their free use or re-purposing by others." Daniel E. Atkins, John Seeley Brown, and Allen Hammond, "A Review of the Open Educational Resources Movement: Achievements, Challenges, and New Opportunities: A Report to the William and Flora Hewlett Foundation" (Palo Alto: Hewlett Foundation, February 2007), online at: http://www.oerderves.org/wp-content/uploads/2007/03/a-review-of-the-open-educationalresources-oer-movement_final.pdf.

alone, and growth in the use of CC-licensed content, while challenging to track, appears to be commensurate.⁷ YouTube has more than 1 billion viewers watching hundreds of millions videos now, every day; 30 YouTube videos have more than 1 billion views each. In the years since Google bought it in 2006, YouTube has become the most popular video platform in the world. And although it's not, properly speaking, a free-as-in-free-dom/libre resource, YouTube is the thing more than any other responsible for us becom-ing new citizens of the screen.⁸

So how is it, then, that at a time of accelerated commons-based media production, at a time of awareness spreading of rights and licenses online, and at a time of video's basic ubiquity, today's newest edition of open courseware—massive open online courses, or MOOCs—doesn't really intersect with the commons? There are thousands of hours of university-produced course videos online now, representing the investment of tens of millions of dollars by cultural and educational institutions in online educational media. Since 2001, major philanthropic foundations—Ford, Gates, Hewlett—and U.S. federal government agencies have begun implementing, if not fully free/libre licensing, at least open licensing mandates for their research and education grantees.⁹ Yet most of the so-called open courses and open courseware projects that universities have produced to date and most of the ones that they are producing today (some with support from these very same foundations and agencies) are far from fully open—super far, for ones without any CC licenses, from being able to be welcomed by keepers of the commons into the truly shareable universe, and still too far, for the ones with licenses that are less than liberal, from being shared in ways that make them free.¹⁰

9 http://www.gatesfoundation.org/How-We-Work/General-Information/Open-Access-Policy; http:// www.fordfoundation.org/newsroom/news-from-ford/934; http://www.hewlett.org/blog/posts/ helping-good-ideas-go-further; and http://scholcomm.columbia.edu/open-access/public-accessmandates-for-federally-funded-research/

10 David Wiley says, "I hate this term [MOOC]. Almost every so-called MOOC violates at least one letter in the acronym." http://opencontent.org/blog/archives/2436. See also Timothy Vollmer's early call to action, "Keeping MOOCs Open" (November 1, 2012), online at: https://creativecommons. org/2012/11/01/keeping-moocs-open/.

wiki/Wikipedia:Modelling_Wikipedia's_growth; https://en.wikipedia.org/wiki/Wikipedia:Size_ comparisons; https://tools.wmflabs.org/wmcounter/

⁷ https://stateof.creativecommons.org/2015/; https://stateof.creativecommons.org/2015/data. html#from-research-to-cute-cat-photos-the-commons-offers-a-treasure-trove-of-content; https:// stateof.creativecommons.org/2015/data.html#more-than-1-billion-cc-licensed-works-in-thecommons-as-of-2015; https://creativecommons.org/weblog/entry/46712/; https://twitter.com/ mitocw/status/674320125844193280

⁸ https://www.youtube.com/yt/press/statistics.html; https://en.wikipedia.org/wiki/List_of_most_viewed_YouTube_videos; http://www.cisco.com/c/dam/en/us/solutions/collateral/service-provider/visual-networking-index-vni/complete-white-paper-c11-481360.pdf; http://www.nytimes.com/2016/07/28/technology/facebook-earnings-mobile-ad-revenue.html; https://en.m.wikipedia.org/wiki/List_of_virtual_communities_with_more_than_100_million_active_users.

How odd. Open Courseware launched at MIT, the university where Richard Stallman, the visionary behind free software and the inspiration behind both Wikipedia and CC, keeps his primary office. Creative Commons attributes its establishment to the inspiration that its founders drew from Stallman. "In December 2002," CC notes, Creative Commons "released its first set of copyright licenses for free to the public.... inspired in part by [Stallman's] Free Software Foundation's GNU General Public License."¹¹ Wikipedia also attributes its founding to Stallman, having based its "technological and conceptual underpinnings," it says, on the "free-as-in-freedom online encyclopedia . . . proposed by Richard Stallman in December 2000."12 MIT and other Open Courseware planned to be shareable, too, from the get-go-open meant open as in open enrollment, but also "freely and openly available," copy-able, shareable, and modifiable for educational purposes.¹³ EdX, one of the most popular and visible MOOC platforms, a non-profit, and an enterprise setting forth a commitment to openness and freedom, was unveiled to the world at MIT as well-in 2012.¹⁴ Yet again, most edX MOOCs, indeed most MOOCs, like most university video, have lain and continue to lie outside the commons. And they are destined to stay there unless we do something.

Why is progress in this area important? It is important because the Internet grants each of us who can use it the chance to improve human knowledge systematically—and to transcend barriers, in some cases centuries-old barriers, to self-improvement. In many ways MOOCs and Open Courseware and Wikipedia and Creative Commons and Google/ YouTube are all part of the same project—envisioned in 2001, earlier by Stallman, earlier yet by visionaries behind the start of public broadcasting here and abroad, much earlier, even, by publishers active centuries ago in the Enlightenment, and even earlier-earlier, in ancient Alexandria under the Ptolemaic kings—a giant rich resource: a gigantic global encyclopedia, or *Encyclopédie*, or library or museum, contributing to universal access to human knowledge.¹⁵ Many modern universities recognize this truly global potential in

13 http://ocw.mit.edu/terms/

¹¹ https://creativecommons.org/about/history/

¹² https://en.wikipedia.org/wiki/History_of_Wikipedia. Stallman's proposal for a free encyclopedia is online here: https://www.gnu.org/encyclopedia/anencyc.txt. Edward Snowden claims inspiration from Stallman, too. See Snowden and Daniel Ellsberg in conversation at HOPE 2014, online at: https://www.youtube.com/watch?v=6PHFjLkwOZE. Snowden's remarks begin at 41:11.

¹⁴ This time the press conference was captured on video—video that is now posted on ... YouTube. See: http://video.mit.edu/watch/press-conference-mit-harvard-announce-edx-11225/; http:// news.mit.edu/2012/edx-launched-0502; and http://news.mit.edu/2012/mit-harvard-edxannouncement-050212. EdX chief Anant Agarwal called this revolution in Boston one featuring not tea, not guns, and not the sword, but the pen and the mouse—with a goal of educating "a billion people" around the world. Of course, the camera and the screen and speakers are all big parts of it, too.

¹⁵ Peter B. Kaufman, *The New Enlightenment: The Promise of Film and Video in the Digital Age* (New York: Seven Stories Press, forthcoming); "The Encyclopedia of Diderot and d'Alembert," online in translation at: http://quod.lib.umich.edu/d/did/; and Stephen Greenblatt, *The Swerve: How the World Became Modern* (New York: W.W. Norton, 2011).

their mission statements and supposedly position the results of their research and publishing and teaching to help achieve it. MIT's mission statement, for example, reads:

The Institute is committed to generating, disseminating, and preserving knowledge, and to working with others to bring this knowledge to bear on the world's greatest challenges.¹⁶

MIT President Rafael Reif has written, with online courseware specifically in mind:

MIT's mission statement charges us to advance knowledge and educate students, and to bring knowledge to bear on the world's great challenges for the betterment of humankind. Open sharing of knowledge is the purest manifestation of this mission.¹⁷

Progress in this area is important also because education should be, as Stallman has long recommended, a domain of freedom, where innovation and progress can be facilitated with as few hurdles—technological, legal, normative—as possible.¹⁸ It is also important because for most of human existence, say 25,000 to 40,000 years, we have been teaching and learning from each other through the sharing of sounds and pictures much like those on a modern computer screen, and—our current fetish for text and book-learning notwithstanding—we are hard-wired (text, *schmext!*) to continue that tradition in this new video age.¹⁹ And yet, again, most of today's 3,000 or so available MOOCs carry less liberal licenses on them than most of the courses on Open Courseware—suggesting rather forcefully that we may be going backwards even as we celebrate so many of our movements ahead.²⁰

¹⁶ http://web.mit.edu/mission.html.

¹⁷ http://ocw.mit.edu/about/presidents-message/. Reif has noted that, "If you share money, it disappears, but if you share knowledge, it increases." Quoted in Shigeru Miyagawa, "Open CourseWare and MOOCs," Conversations in Online Learning, Columbia University, November 6, 2014, online at: https://www.youtube.com/watch?v=fGnaie4RXEg. See also Charles M. Vest, "Why MIT Decided to Give Away All Its Course Materials via the Internet," *Chronicle of Higher Education*, January 30, 2014, online at: http://www.chronicle.com/article/Why-MIT-Decided-to-Give-Away/9043.

¹⁸ https://stallman.org/articles/online-education.html. Needless to say, other fields—health, medicine—would also be well served by a free licensing regime as well.

¹⁹ Walter Ong, Orality and Literacy: The Technologizing of the Word (New York: Routledge, 2002), p. 2.

MIT Open Courseware adopted its first Creative Commons license in 2004. http://ocw.mit.edu/ about/15-years/. The license governing most of MIT OCW's courses is CC BY-NC-SA 4.0 (https:// creativecommons.org/licenses/by-nc-sa/4.0/legalcode; see: http://ocw.mit.edu/terms/; http://ocw. mit.edu/terms/#cc; http://ocw.mit.edu/terms/#noncomm). There remains some confusion among OER experts about what is and what is not commercial use. See: https://wiki.creativecommons. org/wiki/Defining_Noncommercial; http://opencontent.org/blog/archives/307; and http:// openedreader.org/. In closing off use of MIT OCW to commercial companies ("Use of MIT OpenCourseWare materials is open to all except for profit-making entities who charge a fee for access to educational materials."), ostensibly to keep MIT OCW, by the terms of its mission, "free," MIT OCW renders MIT OCW less than free. See MIT's terms explained online here: http://ocw. mit.edu/ans7870/global/MIT_OpenCourseWare_FAQs.pdf; Stallman's critique (online at: https:// stallman.org/articles/online-education.html), and the discussion below on pp. 21–36.

The Redefining Open Project, part of a larger advocacy initiative on opening moving images that Intelligent Television is leading with core support from the William and Flora Hewlett Foundation, explores why MOOCs are not as open as the open in their name might suggest—and it puts forth suggestions about what might be done to help. This handbook analyzes the anatomy of educational video; reviews the licensing frameworks for open courseware to date; describes the state of educational media production and distribution in 2016; and provides practical information for how production, distribution, archiving, and preservation processes might be changed in order to achieve greater openness and greater return on investment for many of the faculty teaching, and institutions producing and funding, MOOC development today. The Redefining Open Project will presenting a series of next steps for MOOC producers to realize the promise that the founders of Open Courseware first envisioned 15 years ago—and that others, as noted, may have envisioned long (indeed very long) before that.²¹



²¹ For more on the modern intellectual commons and its roots, see: https://en.wikipedia.org/wiki/ Commons; http://www.thepublicdomain.org/; and the defining work of Lawrence Lessig, including *The Future of Ideas: The Fate of the Commons in a Connected World* (New York: Random House, 2001).

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Each of the online courses that can be delivered via the internet to screens and speakers around the world—whether about poetry, film, finance, computer programming, public speaking, psychology, biology, history, politics, English, or any of the other subjects out there²²—and whether produced by a large or small or public or private institution, represents centuries of technological innovation and advances in teaching and learning. Their media composition (about which more in a moment) reflects that rich history. Were there a knobby little MOOC branch on the education and communications tree of life, we would be able to see its evolution in media and communications phylogenesis dating way back—back through OER and its founding, back to older educational video production and earlier educational broadcasting and public radio, back even to earlier distance education.²³

MOOCs themselves, however, as a self-standing phenomenon are less than a decade old. While teachers—of university courses in particular—have sought to connect with and to the outside world for teaching purposes for a long time, the very first MOOC, by all accounts from master educator and online learning advocate George Siemens, bore the DNA helix—the genetic instructions for a MOOC—that all of its successors would carry. Siemens's 2008 course was itself about connected knowledge, and thus, rather trippily, a kind of meta project. While it ran across sophisticated webs of RSS feeds and blog posts and meet-ups in Second Life and Moodle, at its core were thousands

²² http://www.onlinecoursereport.com/the-50-most-popular-moocs-of-all-time/

²³ For more history, see Paul Saettler, *The Evolution of Educational Technology* (Greenwich: Information Age Publishing, 2004); Devin Orgeron, Marsha Orgeron, and Dan Streible, eds., Learning with the Lights Off: Educational Film in the United States (New York: Oxford University Press, 2012); and Peter B. Kaufman, "Visual Education and the University of the Air," presentation at the Content in Motion 2015 EUscreen annual meeting, Warsaw, Poland, December 4, 2015, online now at: http://blog. euscreen.eu/warsaw-conference and http://blog.euscreen.eu/archives/8207. A tree of life-http:// www.amnh.org/exhibitions/darwin/evolution-today/how-do-we-know-living-things-are-related/ tree-of-life/; https://www.nsf.gov/bio/pubs/reports/atol.pdf—for MOOCs would be interesting. See, for a start: http://blogs.cetis.org.uk/cetisli/2015/05/11/moocs-and-open-education-timelineupdated/. Lest there be any doubt that everything old is new again, the 1910s and 1920s saw a rush of new organizations being formed to explore new moving-image technology for teaching and learning—among them, the National Academy of Visual Instruction, the Visual Instruction Association of America, the Society for Visual Education, and the National Education Association Department of Visual Instruction. The editors of the inaugural issue of Visual Education said: "We believe that the future awaiting the present efforts toward visual education will be more brilliant than the dreams of its most ardent devotees. Undoubtedly, much of the prophecy now being uttered so freely on all sides will prove to have been either false or gravely misdirected. But the future will come—as the future always does—and it will bring to American education great benefit or untold harm to us according as it is moulded by the sound judgments of educational experts or by the bungling hands of enthusiastic tyros." "Foreword," Visual Education 1, No. 1 (1920), p. 6.

of students learning online, taught by established faculty, in classes offered up to the public by accredited institutions.²⁴

Early MOOCs and all their successors—now thousands of them, on platforms from Coursera and edX to FutureLearn and beyond—are created from elemental building blocks of multiple-/multimedia, which is to say text, images, audio, and moving images. All educational video is composed from these elements. At the heart of a MOOC, as a rule, is a lecture that has been written, then read, and maybe also illustrated, often originally in the classroom—or a conversation or a demonstration—the recorded version of which is again often illustrated on screen afterwards with additional text, sounds, images, and moving images.

Online course producers sometimes seek to explain the work involved in publishing MOOCs by putting forth direct parallels to other, earlier media.²⁵ The most fruitful medium for such comparisons has been books—and textbooks, in particular.²⁶ The simple anatomy of a book as a physical object is relatively easy to display and explain—it's made up of bits of paper, ink, glue, and cardboard. As a media object, a book's bits (now bytes) of para-graphs, pages, and chapters are measurable and easily fungible, too.²⁷ As an object of intellectual/legal/financial property—a rectangular cuboid or paralleliped of copyrighted content, with property stakeholders that include, at various times, the author, the publisher, printers, distributors, readers and other consumers and users, the copyright office of its country of publication, governments that collect tax on its sale and royalties, and others licensors, licensees, rightsholders, and investors—the anatomy can get complex, but it is still straightforward enough to unpack pretty breezily in 2016.²⁸

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²⁴ https://en.wikipedia.org/wiki/Massive_open_online_course; https://en.wikipedia.org/wiki/ File:George_Siemens_interview_on_MOOCs_and_Open_Education.webm.

²⁵ See Peter B. Kaufman, *The Columbia Manual of Video Style* (New York: Columbia University Press, forthcoming). Early filmmakers did this, too, for the first moving pictures. See, for example, Sergei Eisenstein, "Dickens, Griffith, and Ourselves," *S. M. Eisenstein: Selected Works Vol. 3, Writings 1934–47*, edited by Richard Taylor and translated by William Powell (London: I. B. Tauris, 1996), pp. 193–239.

²⁶ On essential qualities of books, see Roberto Calasso, *The Art of the Publisher* (New York: Farrar Straus and Giroux, 2015). The OER community, led by the Hewlett Foundation, David Wiley, and others, has taken significant strides in opening up textbook publishing and distribution. Diana G. Oblinger, ed., *Game Changers: Education and Information Technologies* (Washington, DC: EDUCAUSE, 2012, online at: http://net.educause.edu/ir/library/pdf/pub7203.pdf); David Wiley, ed., *An Open Education Reader* (online at: http://openedreader.org/); and more at: http://openedgroup. org/publications. For OER and MOOCs there have been some early calls to action—https:// en.wikibooks.org/wiki/Open_Education_Handbook—but the point of this paper is to say that the battle for educational video and online courses now has to be joined. To use textbooks as the sole metric for OER adoption is short-sighted.

^{27 &}quot;The Parts of a Book," The Chicago Manual of Style: The Essential Guide for Writers, Editors, and Publishers (Chicago: University of Chicago Press, 14th ed., 1993). Not much has changed for the components of a book since the first edition of the Chicago Manual (http://www.chicagomanualofstyle.org/facsimile/ CMSfacsimile_preface.pdf) appeared in 1906.

²⁸ Managing Intellectual Property in the Book Publishing Industry: A Business-Oriented Information Booklet (Geneva: World Intellectual Property Organization, YEAR), online at http://www.wipo.int/edocs/

Much like how biology textbooks of yore, with their successive plasticine pages of skeletons, muscles, nervous systems, and organs, dissected the physical body, rich, timebased, or video-centric media can be dissected one body part at a time, too. Like books, MOOCs have or can be said to have chapters and illustrations, and also, to keep up the simile, covers and jackets, flap copy, appendixes, notes, frontmatter, glossaries, bibliographies, indexes, different editions, and more. But our understanding of video's basic properties is not as fully developed as our understanding of printed books. While printed books are now in their sixth century of existence, and the codex is deep into its 17th or 18th or 21st, video is still only in its second century—and the web, still in the middle of its first.²⁹ Video especially is much more complex than text or image or even audio files. To borrow from another field of science, video presents a complex chemical compound, where simpler media such as print are more like a basic inert or noble gas.

Zoom in on a particular piece of moving image media-let us look, for the sake of comparison, at traditional educational video, for example the American public broadcasting documentary about the civil rights movement, "Eyes on the Prize"-and the very real complexity of video anatomy becomes apparent. To a civilian viewer, this video might be entertaining, even informative, even educational. To the people involved in producing it, that film also represents myriad relationships of talent, materials, imagination, and technical experience-behind which lies a matrix of rights and responsibilities often governed by dozens of contracts and agreements involving talent, agents, lawyers, guilds, and unions, sometimes representing thousands, sometimes millions, of dollars of underwriting or investment. Rightsholders and stakeholders can include producers, directors, cinematographers, cameramen, film and video editors, writers of scripts, writers of songs, writers of music, actors, singers, musicians, dancers, choreographers, narrators, and animators, as well as whole cohorts of content from music and book publishing and the film business who may have sold or otherwise licensed rights to the production-to say nothing of the dozens, sometimes hundreds, of artists, designers, engineers, consultants, and staff who are often rewarded when they help to make production complete its journey from idea to finished work. F. Scott Fitzgerald wrote of the "savage tensity" often present when Hollywood studio bosses would first screen the movies they were producing, as these screenings were "the net result of months of buying, planning, writing and rewriting, casting, constructing, lighting,

pubdocs/en/copyright/868/wipo_pub_868.pdf. See also the leadership work of James Grimmelmann, online at http://www.thepublicindex.org/; https://www.acslaw.org/files/Grimmelmann%20 Issue%20Brief.pdf; and in *The Boy Who Could Change the World: The Writings of Aaron Swartz* (New York: The New Press, 2015).

²⁹ For the early centuries of books, see Anthony Grafton and Megan Williams, Christianity and the Transformation of the Book: Origen, Eusebius, and the Library of Caesarea (Cambridge: Belknap Press/ Harvard University Press, 2006) and Megan Hale Williams, The Monk and the Book: Jerome and the Making of Christian Scholarship (Chicago: University of Chicago Press, 2006).

rehearsing and shooting—the fruit of brilliant hunches or of counsels of despair, of leth-argy, conspiracy and sweat." 30

One will find, to bear out Fitzgerald, that a typical two-hour feature film can have as many as 5,000 different shots, all told, edited together—and a typical feature-length documentary, which will present much more licensed content, as many as 2,000.³¹ Perhaps that complexity can best be visualized itself in an annotated moving-image illustration that explores the anatomy of a media production—and visualizes the sources and online uses for those sources together. As the annotated video, below, notes, the number and types of existing/potential creative and economic/property stakeholders involved in the professional production of media—in this case, a clip of a professionally produced educational documentary for public broadcasting—are numerous; licensing experts in public media have calculated that there can be as many almost 80 different rightsholders for a single minute of a finished public television documentary.³²

- 31 http://www.cinemetrics.lv/index.php; http://www.cinemetrics.lv/database.php?all; http://www.cinemetrics.lv/distrib.html; see the case study of Ric Burns's "Warhol" at: http://www.cinemetrics.lv/movie.php?movie_ID=5977.
- 32 Author interviews with Joe Basile, Thirteen/WNET, December 8, 2009, and "Eyes on the Prize" clearance attorney Sandra Forman, July 26, 2016.

³⁰ F. Scott Fitzgerald, The Last Tycoon (New York: Scribners, 1941). Or what Neal Gabler, in his biography of Walt Disney and Disney studios, calls "the nervousness" that accretes from "years of imagining, scrutinizing, retelling, fiddling, mobilizing, and pushing." Neal Gabler, Walt Disney: The Triumph of the American Imagination (New York: Alfred A. Knopf, 2006), p. 272. The anatomy of rich media is now getting the attention it deserves. Music, film and television are being parsed for their so-called genomic structures to improve online search, retrieval, and recommendation engines for their further consumption—via the algorithms that power the businesses of such companies as Pandora, Netflix, and Google. "At the heart of Pandora," Pandora writes, "are over 400 individual attributes or 'genes' for songs and a complex algorithm for organizing them. Each of the songs from Pandora's database — in 2006, over 400,000 songs over 20,000 artists — has been assessed manually — requiring the company's operators to spend a minimum of 20 minutes of assessment per 4 minutes of song." Even the characteristics of books—that old medium—are being analyzed this way now. http://www. pandora.com/corporate/mgp.shtml; https://en.wikipedia.org/wiki/Music_Genome_Project; http:// www.google.com/patents/US7003515?dg=7,003,515; http://thevideogenomeproject.com/. See also: http://www.businessinsider.com/how-the-netflix-recommendation-algorithm-works-2016-2; http://techblog.netflix.com/2016/02/recommending-for-world.html; http://www.theverge. com/2016/2/17/11030200/netflix-new-recommendation-system-global-regional; http://www. businessinsider.com/netflix-recommendation-engine-worth-1-billion-per-year-2016-6. One day, the powerful algorithms at work toward these commercial objectives may be turned on education and the exploration of culture. Netflix, it is said, has "the ability to 'personalize' its interactions with its 81 million customers" (Joe Nocera, "Can Netflix Survive in the New World It Has Created? *New York Times Magazine*, June 15, 2016, online at: http://www.nytimes.com/2016/06/19/magazine/ can-netflix-survive-in-the-new-world-it-created.html). Will educational and culture need to stay far behind? Note, in this context, calls for an "AV Archive Genomic Decoder" and an "Openometer Use-A-Tron" in Peter B. Kaufman, "Assessing the Audiovisual Archive Market: Approaches to Audiovisual Content Exploitation" for PrestoCentre, online at: https://www.prestocentre.org/library/resources/ assessing-audiovisual-archive-market.

Eyes on the Prize: Anatomy of a video clip



ILLUSTRATION I: The Anatomy of a Video Clip https://youtu.be/1SENjXXA4T0

These rightsholders include talented individuals, companies, bands and other groups whose work is audible and visible on the screen, and who often have business contracts with producers and distributors describing the compensation and credits they receive and the rights they have licensed to their work for specific media uses (television, radio, DVD, online, for example) and, even in this networked world, certain, delineated territories (such as North America or Japan). And, in the United States anyway, unions and guilds that engage in collective bargaining with networks and producers often represent them to determine the appropriate pay scales and more general equity participation on behalf of their members. Video stakeholders subject to American Federation of Television and Radio Artists (AFTRA) engagement agreements include actors, singers, dancers, and producers; subject to Writers Guild of America (WGA) employment agreements include scriptwriters; subject to Directors Guild of America (DGA) employment agreements include directors; subject to American Federation of Music (AFM) employment agreements include songwriters and lyricists; composers and arrangers; musicians and music publishers; and possibly subject to various additional collective bargaining agreements include producers, cinematographers and cameramen, film and video editors, animators, voice narrators, choreographers, artists, designers, engineers, consultants, and other staff. The collective bargaining agreements they have negotiated on behalf of their clients, and

the roles they have played and still play in protecting those client rights (and their own interests), profoundly affect the ways in which media has been and is being put online.³³

Vendors and suppliers of images, sounds, photographs, and artwork form another circle of stakeholders. These licensors often have receivables tied to the number of end users the licensee is likely to reach or the numbers of uses (television, home video/DVD, educational video/DVD, mobile platforms, etc.) through which the licensee's work will be made available. These footage suppliers and archives include Getty Images and AP Images, for example. Most are commercial businesses. Some represent unique collections of classic media that can be used-under current law and standard practice-only through a license with their company. A licensing director at a U.S. public media station once sought to help a producer use a clip of the film "Rebel Without a Cause" in his television show, and Metro-Goldwyn-Mayer billed his company over \$100,000 for the educational/public television broadcast rights to 70 seconds. Such licenses, too, often lie at the core of public media productions. And all of these stakeholders, licensors, and beneficiaries involved in producing audiovisual media have interests that are affected when their productions enter the digital universe online-where, once posted, they can be replicated ad infinitum almost for free, anywhere, and thus the economic model on which most every one of these contracts had been predicated goes right out the window.

While performances recorded and released for public media reveal many—sometimes scores—of real and putative stakeholders, MOOCs, as a rule, avoid most of the issues posed by commercial television and educational broadcasting. Indeed, because MOOCs involve a small circle of stakeholders, compared to more elaborate video-centric projects, and new distributors and platforms, relative to their older cousins like books, the process of making MOOCs truly as open as their name suggests is in fact much more straightforward. At the same time, MOOCs—and all university- and museum- and library-produced educational video—are incredibly powerful as media. To echo the question of Roy Rosenzweig, who 10 years ago asked whether history could, like Wikipedia, become open source, we should be asking whether education, or television—or at least educational television, or educational video—can become open.³⁴ Responsibilities for building and protecting the public sphere,

³³ Between 2005 and 2007, the BBC claims that it invested 6,500 person-hours to clear a total of just 524 hours of BBC footage for its experimental online Creative Archive. The BBC estimated that to clear the entire BBC Archive for online use would take 685 years. Ben Green, "Delivering the BBC Archive: The Rights Challenge," a presentation to the JISC Film & Sound Think Tank, October 29, 2009; and "Knowledge Is," a short film produced by Paul Gerhardt and Peter B. Kaufman for the JISC Film & Sound Think Tank in June 2010, online at: http://www.jisc.ac.uk/whatwedo/programmes/ filmandsound.aspx and https://www.youtube.com/watch?v=qMLf5mpifNc. See also Patricia Aufderheide and Peter Jaszi, "Untold Stories: Creative Consequences of the Rights Clearance Culture for Documentary Filmmakers" (Washington: American University, 2004), online at: http://archive. cmsimpact.org/sites/default/files/UNTOLDSTORIES_Report.pdf.

³⁴ Roy Rosenzweig, "Can History be Open Source? Wikipedia and the Future of the Past," *Journal of American History* 93, No.1 (June 2006), pp. 117-146, and online at: http://chnm.gmu.edu/essays-onhistory-new-media/essays/?essayid=42. Rosenzweig described Wikipedia as "the most important application of the principles of the free and open-source software movement to the world of cultural

the public interest, the public square—the commons—had engendered efforts in this direction in early public broadcasting (and even broadcasting as a whole), but our failures in these efforts have been a bigger part of the story than our successes.³⁵ Given what we know now about the commons and producing for it, it is fairly astounding that none of the other forms of life on the MOOC branch on the tree of knowledge—not educational broadcasting; not public television; not public radio—is being produced in any significant way with it in mind.³⁶ MOOCs might be able to lead the way. Online education can be freely licensed easily. It doesn't have 600 years of baggage with it.³⁷ And specifically it doesn't yet have, like film and especially television, the consternation of a century of rights mismanagement behind it.³⁸

- 36 This part of our branch is covered by mold, lichen, and fungus. In September 2016, Netflix—working before public broadcasting, before educational institutions—began to experiment with free licensing of its programming, albeit only for one of its smaller shows. (Janko Roetggers, "The Story Behind 'Meridian': Why Netflix Is Helping Competitors With Content and Code," *Variety*, September 16, 2016.) Dutch public broadcaster VPRO has agreed to use CC-BY licenses for all the raw footage of its 2016-2017 series "Mind of the Universe," featuring some of the great minds of science (http://www.vpro.nl/programmas/the-mind-of-the-universe/english.html). Sound and Vision in the Netherlands is advising and helping to provide metadata and will host a number of community edit-a-thons in order to add the videos to Wikipedia. https://meta.wikimedia.org/wiki/Grants:PEG/Mind_of_the_Universe:_open_video_commons. But once upon a time, there had been greater ambitions.
- 37 Netflix has become a dominant player in video, in entertainment, and in the attention business in part because, as Joe Nocera has written, "it didn't have billions of legacy profits to protect" (Nocera, "Can Netflix Survive?" http://www.nytimes.com/2016/06/19/magazine/can-netflix-survive-in-the-new-world-it-created.html). There are many lessons from Netflix for education, and indeed, MOOCs could become for education what Netflix has become to video entertainment. But one has to be careful making the case.
- 38 For more on the travails of clearing and then re-clearing material—especially songs and commercial television news footage—for television, see: Katie Dean, "Bleary Days for Eyes on the Prize," *Wired*, December 22, 2004, at: https://www.wired.com/2004/12/bleary-days-for-eyes-on-the-prize/; Nancy Ramsey, "The Hidden Cost of Documentaries, *New York Times*, October 16, 2005, online at: http:// www.nytimes.com/2005/10/16/movies/the-hidden-cost-of-documentaries.html; and Michael M. Epstein, "Eyes off the Prize," *Television Quarterly* 12 (2006), online at: http://www.tvquarterly.com/tvq_36_3/media/articles/36.3Eyes_off_the_prize.pdf.

^[...] production," and asked toward the end of the article, and toward the end of his life, "Could we, for example, write a collaborative U.S. history textbook that would be free to all our students?... An open-source textbook would not only be free to everyone to read, it would also be free to everyone to write. An instructor dissatisfied with the textbook's version of the War of 1812 could simply rewrite those pages and offer them to others to incorporate. An instructor who felt that the book neglected the story of New Mexico in the nineteenth century could write a few paragraphs that others might decide to incorporate." See also "The Economics of Open Content," a 2006 conference that Intelligent Television produced with the support of the Hewlett Foundation and MIT, video of which WGBH public broadcasting put online at: http://forum-network.org/partner/intelligent-television

³⁵ Robert W. McChesney, *Telecommunications, Mass Media, and Democracy: The Battle for the Control of U.S. Broadcasting, 1928-1935* (New York: Oxford University Press, 1993); Michelle Hilmes, *Radio Voices: American Broadcasting, 1922-1952* (Minneapolis: University of Minnesota Press, 1997); Cass R. Sunstein, "Television and the Public Interest," California Law Review 499 (2000), online at: http://scholarship. law.berkeley.edu/californialawreview/vol88/iss2/9/; Paul Starr, *The Creation of the Media: Political Origins of Modern Communications* (New York: Basic Books, 2004). See also, and especially, and Ethan Zuckerman, "The Internet's Original Sin," *The Atlantic*, August 14, 2014, online at: http://www.theatlantic.com/technology/archive/2014/08/advertising-is-the-internets-original-sin/376041/ and Ben Tarnoff, "The Internet Should Be a Public Good," *Jacobin*, August 31, 2016, online at: https:// www.jacobinmag.com/2016/08/internet-public-dns-privatization-icann-netflix/.

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III. RIGHTS, LICENSES, AND ACCESS: Producing MOOCs as OER

This is not to say that open licensing of MOOCs is a cakewalk. MOOCs involve multiple stakeholders—first of all, their teaching faculty—and licensing decision points throughout the various stages of their existence from inception to publication. Yet complex as they may seem, online courses have only a finite number—a small finite number—of contracts/agreements/documents that govern the rights and licenses to most of the content commissioned at its creation.

For our purposes here, the process of publishing MOOCs can be said to have five key stages—preproduction, production, and post-production, followed by distribution and preservation. In each of these phases of the process, educators have to consider rights and legal agreements no matter how they might intend to facilitate public access to the work—but with special care if they intend to produce a MOOC (or better yet, a Massive *Really* Open Online Course—a MROOC). There are various types of MOOCs to produce as well—including classroom-based MOOCs that are recorded in lecture halls and seminar rooms to studio-based MOOCs where video cameras roll in a more controlled environment. While these phases of publication are presented in some kind of chronological order in the text that follows, note that it will always be beneficial for the licensing regime for all of the phases to be agreed upon before faculty and staff initiate any real work on the online course. The point, to boil it all the way down, is for faculty and administrators to select the appropriate free licensing regime—ideally comprised of copyleft licenses, about which more, below—and stay true to that regime through all the stages of MOOC production and distribution.

This section of the handbook reviews these agreements for faculty and producers and provides template language to help ensure that your online course can be produced from the get-go to render a MOOC that is, in effect, free, or open by default. The number of explicit and implicit licenses and agreements and owners of content in MOOCs—while nothing near that of television proper—can seem like quite a challenge. Be undaunted. Remember, you are building a knowledge base for generations to come!

A. Pre-production

Pre-production is the planning stage before cameras start rolling. It's the stage where many of the most important MOOC production and distribution decisions are made and where many of the essential working relationships are forged.

Before you plunge too deeply into MOOC-making, it's important to consider the key point raised in Part I, above—about the mission of your university and institution, and your relationship to that mission. Does your institution have a credo about sharing and disseminating knowledge anything like these from MIT or Columbia?

MIT:

The Institute is committed to generating, disseminating, and preserving knowledge, and to working with others to bring this knowledge to bear on the world's greatest challenges.

Columbia:

[The University] expects all areas of the university to advance knowledge and learning at the highest level and to convey the products of its efforts to the world.

Have a look at the policies of your university concerning IP and copyright. Does your institution have, as it were, a formal mandate to share knowledge (and this can mean your knowledge!)? Is your university committed to open access, say, like Harvard?

At Harvard, where so much of our research is of global significance, we have an essential responsibility to distribute the fruits of our scholarship as widely as possible.³⁹

While many of these policies are yet in formation—Harvard provides a template and boilerplate language for other universities contemplating adopting commitment to open access, and foundations and collectives are now providing new guidelines for institutional policies related to openness and OER⁴⁰—each serves as the playing field on which administrators and faculty can agree about usage rules and licensing preferences for these courses and maximize the benefits that faculty and university receive from online course production and distribution. When the university and faculty do effectively confer about making their MOOCs accessible and more open than not—and especially if they decide to MROOC it up—they are actually working on the same side: the same side of progress, of Santa's list,

³⁹ Emphasis added. https://osc.hul.harvard.edu/policies/; http://cyber.law.harvard.edu/hoap/Open_ Access_%28the_book%29; Compare: http://www.columbia.edu/cu/provost/docs/copyright.html; https://ogc.stanford.edu/university-faqs/intellectual-property; https://doresearch.stanford.edu/ policies/research-policy-handbook/intellectual-property/copyright-policy.

⁴⁰ See: https://osc.hul.harvard.edu/assets/files/model-policy-annotated_12_2015.pdf; http:// cyber.law.harvard.edu/hoap/sites/hoap/images/Goodpracticesguide-2015.pdf; http://cyber. law.harvard.edu/hoap/Good_practices_for_university_open-access_policies; http://cyber.law. harvard.edu/hoap/Drafting_a_policy. There have been other calls for publishing annotated contracts, with fully visible markup, for all partners in mass digitization projects. See: Peter B. Kaufman and Jeff Ubois, "Good Terms: Improving Commercial-Noncommercial Partnerships for Education," *D-Lib* 13, No 11-12 (November-December 2007), online at: http://dlib.org/ dlib/november07/kaufman/11kaufman.html. On new openness guidelines, see: http://policy. lumenlearning.com/ and http://oasis.col.org/handle/11599/2361. A registry of open access policies at cultural and educational institutions (and which funders mandate what licensing requirements) is also now available: http://roarmap.eprints.org/.

of the ethically right thing to do, of their own self-interest. An open MROOC will be redistributable—and as part of that, it will be able to be redistributed on Wikipedia, which is, as I have noted elsewhere, one of the key finding aids for anything in the digital era.⁴¹

In the actual agreement that gets put into place to govern the relationship between faculty and institution (if you are a faculty member, you will be invited to execute one of these), there are multiple places/nodes/forks at which rights decisions can be and are often made affecting the openness of your online offering. First among them, of course, is the decision about who owns the course-teacher, institution, or both. Second is the definition of what exactly is being created, published, and owned. In these agreements, the course can mean intellectual property-the lectures, the illustrations, the course design, the teaching methods and styles, the syllabus-and it can mean the courseware, which can include the recorded media created based on the class with the help of videographers and video editors and university staff. Faculty and administrators also should share sight of the master agreements between the university and the primary MOOC delivery platform—as that relationship governs the current and future disposition of your intellectual property, and the role of the university in that process. Precisely because educational institutions make such substantial investments in its faculty MOOC stars-I love faculty, echoing what I learned from Lorne Michaels at Broadway Video, to be known as "the talent"-it's the faculty themselves who should take the lead deciding on the ownership and distribution of their courses and courseware, much as they would do on the books they write and publish.⁴²

Developing the appropriate ownership and licensing instruments for important material like this requires great care and attention to language and meaning. As in most publishing and television/online video arrangements, faculty should have certain approval rights as regards the university distribution of their course content—online or otherwise. As the field normalizes—MOOCs and the volume of their licenses and contracts will catch up to documentaries and one day perhaps to books—MOOC platforms may take on more of the role of publishers and television/video networks, and licenses will be granted by faculty and universities for terms and territories yet to be defined. Meanwhile, all rights that faculty do not grant to the University should be reserved by them, explicitly. For—again to

⁴¹ It's the sixth most popular website in the world (http://www.alexa.com/siteinfo/wikipedia. org)—and Google's algorithms favor it. See: Peter B. Kaufman, "Video on Wikipedia and the Open Web: A Guide for Cultural and Educational Institutions" for the Open Video Alliance and the Ford Foundation, online at: https://outreach.wikimedia.org/wiki/Bookshelf (https://upload.wikimedia. org/wikipedia/commons/a/a2/Videowikipedia_v1.pdf). Wikipedia editors are busy now uploading films (even full-length films) and video that have fallen out of copyright and/or into the U.S. public domain—one example is the Buster Keaton film "Steamboat Bill Jr." from 1928 (https://en.wikipedia. org/wiki/Steamboat_Bill_Jr.). Given that, of the almost 34 million files in Wikimedia Commons as of this writing, only a small number are moving-image files, it may well be that the opportunity to load educational video into Wikipedia may provide one of the greatest returns on investments—of time, resources, money—of any opportunity now facing the academy.

⁴² Thus the notion of granting irrevocable rights to the university or anyone should be strictly verboten. See, on this point, Kaufman and Ubois, "Good Terms," http://dlib.org/dlib/november07/kaufman/11kaufman.html.

take a page from books and documentaries—it is the faculty first and the university second who together should determine whether and how to license and more generally make accessible to the world the material that they create and bring into it. This includes how to publish and distribute audio and video of the course on YouTube and other platforms besides the major MOOC platforms, and—to our point here—how best to apply relatively innovative licenses to the material so that it can be re-distributed and reused without each user requesting university permission. The relationship that gets defined between the university and faculty needs also to take account of the untoward and the grim—faculty departures, separations, and disputes—and what happens to the online courses and rights and responsibilities for them in each of these cases.

There's copyright, there's licensing-and then, there's Creative Commons

Once faculty and administrators have determined policies between them, they then should determine how best to share their creations with and facilitate use and reuse of these creations by the online public they intend to reach. Creators of MOOCs need not choose among the six Creative Commons licenses that are popularly deployed today—intellectual property need not carry a Creative Commons license at all. A MOOC, like a book, like a documentary, instead can be labeled according to longer-standing tradition as the property, or copyright, of the author (however that author is defined). Users who then seek to do something with that MOOC material—download and keep it, use it in their own work, redistribute it—can write to the authors and owners directly and ask for permission, like we all used to do in the Pleocene, pre-Internet era.

But a Creative Commons license is useful in three important ways. First, it serves notice to all who view a CC-licensed work that the author or rightsholder(s) has/have thought about the issue of licensing the content of the work with the broader public in mind. This is not incidental. Second, it serves to alert the viewer/user that there may be a spectrum of use rights involved in the project that is being described with some considerable sophistication. Third, it serves as a hint that the content within the CC-licensed MOOC may carry within it the promise of freedom—that promise of being part of the new giant library/museum we are building now in tribute to the old Enlightenment and Library of Alexandria.

There are six Creative Commons licenses for MOOC professors and producers to choose from, ranging from least open/most conservative to the most open/liberal.⁴³ Again, use of Creative Commons signals to the world—to potential users of your material, and to machines that search with algorithms to locate it—that you somehow seek

⁴³ https://creativecommons.org/licenses/; and https://creativecommons.org/about/platform/; http:// www.wageningenur.nl/upload_mm/c/c/6/52dc2d12-0f2a-4895-ac11-c61b2ee557e9_MOOCs%20and%20 Creative%20Commons_March2016.pdf/ See also: Jane Park on OpenEdX: http://www.slideshare.net/ janeatcc/increasing-content-reuse-and-user-engagement-on-open-edx. The design of these licenses draws inspiration from the "four essential freedoms" that Richard Stallman designed for free software. "A program is free software," Stallman writes, "if the program's users have:

to improve upon the existing system of copyright, you are looking to see your work deployed in some fashion, that you recognize the internet and digital technology might play a role in human progress, and that you may be looking to make your work part of something larger. You may restrict your students—your users—from making any changes to or derivative works from your work; you may prohibit them from making commercial use of your work; you may require them to acknowledge and attribute your creativity; you may require them to, in turn, share your work—but greater distribution and greater use is what you signal through CC that you are after.

The palette of these CC licenses is robust. The most conservative CC license is the CC BY-NC-ND license, which, while it facilitates sharing and copying, prohibits users from making any derivative works from being made from your work and prohibits any commercial use or application of your work. Second-most is CC BY-ND, which forbids users from making derivative works but allows for commercial redistribution. Thirdmost is the CC-BY-NC-SA license, which permits derivative works but forbids commercial use-and which requires users to share the work they make or publish with the same license as the one that governs your MOOC. Fourth-most is CC BY-NC, which forbids commercial uses from being made (at least, not without contacting the original creators), but dispenses with the last requirement upon the user, above. Various institutions use different licenses from this CC-BY-NC-SA and CC-BY-NC cluster-among them the Digital Public Library of America, the Internet Archive, YouTube, the Public Library of Science, Europeana, Flickr, and of course MIT CourseWare.⁴⁴ Indeed Open Courseware as a whole has achieved the extraordinary since its inception by clearing most if not all of the course content that it has published online for sharing under the CC-BY-NC-SA license.45

- The freedom to redistribute copies so you can help your neighbor.
- The freedom to distribute copies of your modified versions to others. By doing this you can give the whole community a chance to benefit from your changes. Access to the source code is a precondition for this.

44 https://creativecommons.org/about/platform/

[•] The freedom to run the program as you wish, for any purpose.

[•] The freedom to study how the program works, and change it so it does your computing as you wish. Access to the source code is a precondition for this.

[&]quot;We campaign for these freedoms because everyone deserves them," Stallman writes. "With these freedoms, the users (both individually and collectively) control the program and what it does for them. When users don't control the program, we call it a 'nonfree' or 'proprietary' program. The nonfree program controls the users, and the developer controls the program; this makes the program an instrument of unjust power." See https://www.gnu.org/philosophy/free-sw.en.html.

⁴⁵ http://ocw.mit.edu/terms/; https://ocw.tudelft.nl/about-ocw/faq/



ILLUSTRATION II: Creative Commons Licenses

But that said, OER advocates active today, as opposed to those active 15 years ago, will argue that to be free and open, courseware should be licensed CC-BY. Indeed, for orthodox advocates of truly free-free as in MROOC-free courseware, however, only the last two licenses respect the potential of freedom.⁴⁶ In many ways this is because, as Stallman himself has noted, while many if not most of the projects that call themselves open software embrace all the freedoms necessary in the orthodox Free Software Foundation / GNU Public License requirements, most open courseware projects and most open access projects do not.⁴⁷ If freedom were a poker game and CC licenses the dealt hands, the second-best hand would be CC BY-SA, which allows commercial work and derivatives to be made—as long as

⁴⁶ https://stallman.org/articles/online-education.html.

⁴⁷ Richard M. Stallman, "Libre Software, Libre Education," Columbia University, October 17, 2014. Stallman insisted that Columbia release the recording of his talk in a free-software format, so the OGG version is here: http://ccnmtl.columbia.edu/broadcast/ccnmtl_misc/stallman_101714.ogv. A YouTube video of this talk has been made available on the Intelligent Channel for readers of this Handbook at: https://youtu.be/AUdR4aDF4eQ. See also the definitions posted here: https:// www.gnu.org/licenses/license-compatibility.en.html and https://www.gnu.org/philosophy/opensource-misses-the-point.en.html. See also: Steve Weber, *The Success of Open Source* (Cambridge: Harvard University Press, 2004) and Rishab Ayer Ghosh, *CODE: Collaborative Ownership and the Digital Economy* (Cambridge: MIT University Press, 2005). It is, again not incidentally for the purpose of this handbook, interesting to note how the word "open" can have two different meanings depending on where it is situated in a linguistic and cultural context. In film this is called the Kuleshov Effect. See: http://www.openculture.com/2012/05/alfred_hitchcock_on_the_essential_filmmakers_tool_the_ great_kuleshov_effect.html.

users agree to reshare their new works with the same license. The winningest hand is CC BY, which allows for commercial use and derivatives and places no formal license restrictions on anyone.⁴⁸ These are also the licenses that allow for redistribution on Wikipedia.⁴⁹

B. Production

When commitments to open licensing are decided, or enough agreement to proceed is in place to get started, next step is to make sure your production embraces the licensing regime—hoping this is a MROOC regime—up and down the production process.

Wherever there is a camera or a microphone, there is potentially a production in progress. Universities are entering the world of much more self-aware, systematic, studiotype production, or as Sanjay Sarma, Director of Digital Learning at MIT, has put it, "we are all sort of Disney, and Sony, and MGM—we produce movies."⁵⁰ And wherever a camera or microphone can be found, there needs to be a permissions or appearance release close at hand—tucked into the camera bag, pinned like a child's mitten to her sleeve. This is because anyone whom a camera captures—a faculty member, a student, a staff member, a visitor, a person on a screen within the screen—may have rights to the use of his image (and to your use of his image, in particular), so the grand bargain for those rights needs to be concluded at the outset of video capture rather than in the middle or the end of production. And this is true not only for animate subjects like *Homo sapiens*, but for inanimate subjects which human beings can argue about, sue over, own, trade, and litigate—including creative productions/products especially, broadly defined to include city buildings and country houses, photographs, artworks, images, artifacts, writings, songs and other sounds (like voices), and of course moving images.⁵¹

⁴⁸ There is also PUBLIC DOMAIN and CC0 (https://creativecommons.org/publicdomain/zero/1.0/), but it's unclear to this author whether users should be able to invoke it. The public domain is a place into which much great art and information will fall, in many cases automatically because of the passage of time. It can lead to some confusion when a user can claim his work or remix is already in the public domain—indeed, Creative Commons notwithstanding, when users make any rights determinations at all. For example, one analyst has found that the Digital Public Library of America has over 26,000 different license types (!) on the content that cultural and educational institutions have contributed to it—largely due to confusion among curators at these institutions—and he made a tidy visualization of the chaos. See: http://www.deanfarr.com/viz/rights.php and http://www.deanfarr.com/viz/rights_desc.php. For more background, see the work of Peter Hirtle, a veritable minotaur, in "Copyright Term and the Public Domain in the United States" (online at: http:// copyright.cornell.edu/resources/publicdomain.cfm) and "When is 1923 Going to Arrive and Other Complications of the U.S. Public Domain," *Information Today* 20, No. 6 (2012), online at: http://www.infotoday.com/searcher/sep12/Hirtle--When-Is-1923-Going-to-Arrive-and-Other-Complications-of-the-U.S.-Public-Domain.shtml.

⁴⁹ See also: https://en.m.wikipedia.org/wiki/Free_license.

^{50 &}quot;Spotlight—Future of Education," https://www.youtube.com/watch?v=2aOHkPa8Y2E, at 12:05.

⁵¹ Here's the application for using the Empire State Building's image: http://www.esbnyc.com/businessesb/licensing "We... reserve the right to deny any usage that does not meet with the approval of the ownership and management." For sound, one of the greatest lead sentences ever in an article about copyright is this one from *Ars Technica* in 2016: "The public will soon be free to sing the world's most famous song." Joe Mullin, "Happy Birthday" is Public Domain, Former Owner Warner/Chapell to Pay

The appearance release is a brief, usually one-sheet document for the acknowledgement and signed approval of the human interview subject. One example, from a New York City cultural institution, is reproduced (anonymized) in full below:

ILLUSTRATION III: Audiovisual Subject Consent and Release Form

By signing this form, I hereby grant the [Cultural Institution] the right to create via audio/ video or other means, and the right to reproduce, display, and disseminate worldwide and in perpetuity, in any traditional or electronic media format, such audio/video or other recording/image of my voice/likeness as shown in the audio/video described below. Furthermore, I grant the [Cultural Institution] and other organizations allowed by the [Cultural Institution] the unconditional rights to use these recordings/images, in whole or in part, for non-profit educational or research purposes, or other use without requiring the [Cultural Institution] to notify me, seek my permission, or owe any form of compensation. I understand that these recordings/images will be used in an appropriate and respectful manner. I confirm that these recordings/images were recorded/filmed with my knowledge and consent.

Audio/Video Subject 1

(Name of Person in Audio/Video) 🗅 Child Under 18

□ (optional) Yes, [Cultural Institution] has permission to use my name in corresponding captions or text that appear with my image.

(Signature) Parent/Guardian Literate Witness (Date)

Audio/Video Subject 2

(Name of Person in Audio/Video) 🗅 Child Under 18

□ (optional) Yes, [Cultural Institution] has permission to use my name in corresponding captions or text that appear with my image.

(Signature) 🗅 Parent/Guardian 🛛 Literate Witness

\$14M," *Ars Technica*, February 10, 2016, online at: http://arstechnica.com/tech-policy/2016/02/happybirthday-is-public-domain-former-owner-warnerchapell-to-pay-14m/. More on this below.

(Date)

The wording of this release is almost ideal for educational video. But for MROOCs and open educational resources in the modern age we might suggest deleting "the" in the description of unconditional rights and modifying the description of those rights—and the various limitations on those rights highlighted above—to make them truly unconditional, as below:

By signing this form, I hereby grant the [producing institution] the right to create via audio/video or other means, and the right to reproduce, display, and disseminate worldwide and in perpetuity, in any traditional or electronic media format, such audio/video or other recording/image of my voice/likeness as shown in the audio/video described below. Furthermore, I grant the [producing institution] unconditional rights to use these recordings/images, in whole or in part, without requiring the [producing institution] to notify me, seek my permission, or owe any form of compensation. I confirm that these recordings/ images were recorded/filmed with my knowledge and consent.⁵²

A MROOC-compatible release might also explicitly mention Creative Commons

I consent to giving [producing institution] the option of making my contribution available under a Creative Commons license. The Creative Commons license I prefer is: ______.

and list one of the two most liberal licenses, above. Language to this effect should be provided everywhere and to everyone whom the producing institution may capture with cameras—including on the doors of classrooms and public areas and, online and

⁵² Appearance releases vary. Public broadcasting often recommend additional language regarding remuneration/"consideration," a release from future claims, and a representation that the rights granted are rights one has the right to give. The text from one public broadcaster, anonymized, is provided below:

For good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I hereby agree that [Public Broadcaster] and its affiliates may make recordings of my appearance, performance, voice and likeness (the "Recordings") and incorporate the Recordings, in whole or in part, into any version of the Project.

I hereby acknowledge and agree that as between [Public Broadcaster] and me, [Public Broadcaster] is the sole owner of all rights in the Project, and that [Public Broadcaster] has the irrevocable right to edit the Project, use and license others to use any version of the Project and excerpts and outtakes therefrom, including the Recordings, in all manner and media, now known or hereafter devised, worldwide without limitation as to time. The foregoing rights shall include the right to use the Recordings and my name, likeness, voice and biographical information for Project packaging and for outreach, Project, series and institutional promotion, and publicity purposes.

I hereby expressly release [Public Broadcaster], its licensees, assigns and the Project underwriters from any privacy, defamation or other claims I may have arising out of the broadcast, exhibition, distribution, exploitation, publication, promotion and other uses of the Project and the Recordings containing my appearance therein.

I hereby represent and warrant that I have the legal right and power to enter into this Release and grant the rights granted herein.

printed, in matriculation materials for universities and handbooks for visitors at other cultural and educational institutions.

C. Post-production

While determinations about rights and licenses should take place as early as possible in the MOOC production timeline and simultaneously with all the possible stakeholders in a MOOC's success, the accomplishment of some of the critical licensing work often takes place after the conclusion of principal photography, in the post-production stage. Video editors and university faculty and staff collaborate during this phase to make sure that video-recorded lectures can be illustrated to the satisfaction of the university and key faculty members—and also that other material used for teaching and learning in the MOOC platform learning sequence—the MOOC timeline—or elsewhere online is made properly available to students.

Because of our current system of copyright and intellectual property rights, material that gets photographed, to use the term, for online courses, or scanned or copied or in some way reproduced for distribution, must be assembled with an eye toward having permission from any and all rightsholders to so duplicate and distribute them. In part, of course, that network of pre-permitted content redistribution is what Creative Commons has been designed to deliver—patching together, song and online course and image and sonnet at a time, the great public encyclopedia available to anyone with a screen and a speaker. To make a truly open encyclopedia, one would have to use



ILLUSTRATION IV: A MOOC Timeline (from Eric Foner's online course, "The Civil War and Reconstruction")

material that is, in effect, free—free as in speech, not free as in beer—which is to say licensed via the most liberal Creative Commons licenses or in the public domain. And to make a truly open course, the same would apply—as a complete course can be only as free as the least free element within it.

As universities become producers—like Disney, Sony, MGM—and adopt production sensibilities that augment their longstanding roles as publishers and hubs for important research, they will be well served if they import best some practices from the professional production community.⁵³ Nowhere is this truer than in the field of licensing and permissions. Public television broadcasters like Thirteen/WNET in New York, for example, which began its existence as an educational broadcaster, deploy sophisticated

RIGHTS & CLEARANCES GRID - RELEASES A	ND ACQUIRED MATERIALS			
Series Title: E	pisode #:			
Program Title:				
Original Broadcast Date:				
Prepared By (name, extension):	Appro	ved By (executive pr	oducer):	
DESCRIPTION	SOURCE	AMOUNT PAID	DISTRIBUTION	TERRITORY & TERM
Briefly describe the release and/or material acquired: (A) If it's a release, is it for an appearance, location, materials or something else? (B) If it's a license, is the material acquired a photo, still, transparency, audio, footage, or something else? (C) If it's footage, from what film/program did It come, and how long is it (in seconds)?	Record the name, address, phone number, email address and contact person of the owner/itensor of the acquired material or the entity/person signing the release.	Indicate total fee. Is it: (1) a flat fee or (2) a rate calculated by time or market? Indicate if fee is broken down by distribution markets. Specify options, if any.	MARKET(S) CLEARED (e.g., PTV broadcast, all forms of TV, hone entertainment, non-theatricizudio visual, digitat, streaming, some combination thereof, or something else) Specify options and restrictions, if any.	Indicate territory (place(s) where project is being distributed) and term (time period(s) in which project is being distributed) for each distribution market cleared.

ILLUSTRATION V: Rights & Clearance Grid / Towards a Rights Bible

53 In his account of the making of "Snow White," itself an early step (1937) in what is now a mature industry, Walt Disney biographer Neal Gabler speaks of the sheer organizational prowess achieved in the studio and the resulting "collaboration of the nearly six hundred employees who drew, inked, and painted the quarter-million drawings in what totaled two hundred years' worth of man-hours." That was for one film. In the studio that Disney envisioned and built next, "production would flow smoothly downward from the third floor, where Walt had his office in Wing H next to the story department and where the films were initiated; to the second floor, where the directors and layout men divided the feature stories into sequences, devising the staging of the scenes, and eventually screened the roughs in the sweatboxes located there; to the first floor, where some two hundred to three hundred animators were separated into groups under head animators in each wing to do the actual drawings; to the basement, where the test camera was housed and the roughs were shot." With its commissary, snack bar, penthouse buffet, roof deck, barbershop, gym, and theater, "the studio had been modeled after a college campus." Gabler, *Walt Disney*, pp. 273, 323.

techniques that academic institutions might consider using for their more advanced audiovisual productions. This is especially important if, as leaders in the field attest, a tremendous amount of time and work is being spent clearing rights to put into Open Courseware and MOOCs. MIT and University of Tokyo OER veteran Shigeru Miyagawa has indicated that fully one-third of all the work MIT's OCW staff performed during some years involved clearing of OCW rights for OER.⁵⁴

Professional matrixes for clearance, like the one from Thirteen/WNET, reproduced above, describe the categories that documentary producers and other public broadcasting professionals track for clearances—and given the burdens of rights clearances 15 years into OCW, universities would be well served to follow them. Markets, territories, and term—these are the key license conditions to track using such a grid. Markets now include transmission formats and devices; territories still feature geographical locations for distribution; and term includes length of time under which the license is granted before renewal is required. Together with information about the source for each bit of material, contact information for each rightsholder, and compensation if any paid for usage rights and duplication fees, the detailed results of the clearances for an entire production go into what production professionals calls the "rights bible," which also includes appearance releases for talent and incidental on-camera visuals as noted above.

Production Type Business Model Visibility	Revenue	Audience Size	Territory	Term
are you creating? Are you? Check How and w	be exhibited? what are the revenue streams for your production?	watch your production?	will your production be	last?
 Entertaining a consumer; Entertaining a consumer; Mone-Commercial None-Commercial Nore-commercial Commercial Constraints, news stories) Contention Constraints, news stories) Contention Constraints, news stories Schling a product, designed primarily for students as a regular part of the educational activities of an institution; usually nor-for-profit (e.g., orBAS, instructional TV, corporate training, scholarly lectures) 	Re any unrestricted systematic what soever during the life of the production (c.g., classroom viewing, PSA, public TV or radio program with no ancillary distribution) Supresser/Advertiser Paid for by a third party so that a first party can view it, usually via commercial advertisements within or veroprotations, schools, coroprations, refight, retail so other a first party can view it, usually via commercial advertisements within or rotucine (e.g., overlab-value) Supresser/Advertiser Paid for by a third party so that a first party can view it, usually via commercial advertisements within or rotucine (e.g. overlab-value) See home, often arm of pisyback, ny V, VCR, r., DVR, VOD, iownload) (see worke generated in the form of periodic (e.g., basic cable TV, safed pibnor, PDA, p) (b) Owned Revenue generated in the form of a separate direct for per production or per event; applies to return a production for a fixed period of time like one play, unlimited plays in 24 hours, etc. (e.g., PVK television, download-to-rent, theatrical exhibition, closed circuit TV events like boxing matches, pay VOD) Owned Revenue generated in the form of a retail pridect to by a viadogram or other production or per event; applies to returns a production, closed circuit TV events like boxing matches, pay VOD)	Unlimited Most licenses will have an unlimited audience size. Initiat Situations where the audience size is known and/or small; Limited audience would act as a potential license fee reducer.	exhibited? Specific to Agreement Constitutes either a geographic region or country (e.g., World, North America, United States) or a language/geography combination (e.g., French- speaking Canada)	Specific to Agreement Constitutes a measurement of time and/or plays (e.g., in perpetuity, 10 years from initial broadcast, 6 releases in 4 years, etc.)

ILLUSTRATION VI: Rights Terms and Conditions

54 Miyagawa, "Open CourseWare and MOOCs," November 6, 2014, https://www.youtube.com/ watch?v=fGnaie4RXEg. Rights bibles also provide the production team with notes regarding any credits they will be required to provide rightsholders in the final cut shown on screen—as sometimes the type, wording, and even graphic size of acknowledgements are central to the rights acquisitions process. One of the primitive conditions of video even 100 years into film's existence is its continued inability to provide for dynamic credits, like linked URLs that can appear today as footnotes in scientific papers. Online media could much more richly facilitate user experiences by allowing interested students to visit the fuller source files of the components of a MOOC production—to learn more about each such resource and to promote the licensing business and curatorial responsibilities of the rightsholder at the same time. "Knowledge Is," an experimental film, breaks down credits for component contents in this way, below.⁵⁵



https://youtu.be/qMLf5mpifNc

⁵⁵ Produced by Paul Gerhardt and Peter B. Kaufman for the JISC Film & Sound Think Tank, June 2010. See: http://www.jisc.ac.uk/whatwedo/programmes/filmandsound.aspx. Similar experiments have begun around artwork. See: https://uploads.knightlab.com/storymapjs/ f9d7b44e8575c73185fd5fdfc9c55494/the-art-gallery-of-jan-gildemeester-jansz/index.html.

If the proportion of time and effort involved in clearing rights amounts to one-third of total work time or anything close to that, then the return on investment metric for MOOCs might look stronger indeed if the clearances effected liberal licenses in perpetuity worldwide across all media, rather than the less liberal licenses that allow for restrictions on type of use. Creative Commons licenses CC BY and CC BY-SA on components for the MOOC would reduce the amount of follow-up required with rightsholders, and these licenses on the MOOC itself would insure, as Stallman has said, that MOOCs might not have to be remade because of the noncommercial or no-derivative restrictions they carry on themselves as entire works, on the copies and remixes that are made from them, and on the media components that are telescoped within the original. Stallman has recommended establishing a baseline library of truly free MOOCs—one for each subject. "Sooner or later," he has said, someone will make a course like this for each topic—the introduction to basic algebra, say. "Why not be the one," he has asked, "to whom humanity will owe freedom in that area of education?"⁵⁶

The opportunities to become a creditor to humanity in this area—the video area—of education are, as it happens, growing—for the platforms certainly. Google has long had an advanced search option that facilitates user searches for images that the machine algorithm senses have generous usage rights. Images, for example, have five tiers—"not filtered by license"; "labeled for reuse with modification"; "labeled for reuse"; "labeled for noncommercial reuse with modification"; and "labeled for noncommercial reuse."



ILLUSTRATION VIII: Googling a Hen / Searching by Usage Rights

56 Richard M. Stallman, "Libre Software, Libre Education," Columbia University, October 17, 2014.

YouTube, owned by Google—has only two tiers ("normal" and "CC-attribution"), but it may be in the business of changing that.⁵⁷

And then, there's fair use. The Society for Cinema and Media Studies writes:

The freedom of film and media educators to use audiovisual works in their courses—and the limits on such use—are rooted in existing copyright laws. Copyright law provides owners of copyrighted works a number of limited rights, including the right to exclude others from reproducing, performing, displaying, and distributing their works. The law also gives copyright owners the right to exclude others from preparing derivative works from their original works, including translations, adaptations, and compilations. In many cases, if someone engages in any of these activities without the permission of the copyright owner, that person may be infringing on the owner's rights and may thus be held liable for damages.

In the interest of balancing copyright owners' rights against potentially beneficial uses of the works by others, copyright law has imposed a number of restrictions on these rights. These restrictions serve as "safe harbors" for educators by allowing certain uses of protected works that do not infringe copyright holders' rights. There are three important safe harbors of particular interest to film and media educators: the doctrine of fair use, the exception for face-to-face teaching activities, and the exception for online distance education. The fair use doctrine affords the broadest protection for use of copyrighted materials because it is a general and flexible standard. In general, fair use allows people to use copyrighted materials without authorization for purposes such as "criticism, comment, news reporting, teaching (including multiple copies for classroom use), scholarship, or research," so long as their use qualifies as a "fair use" in light of the four factors set out in 17 U.S.C. § 107:

- 1. The purpose and character of the use, including whether such use is of a commercial nature or is for nonprofit educational purposes;
- 2. The nature of the copyrighted work;
- 3. The amount and substantiality of the portion used in relation to the copyrighted work as a whole; and

(►

⁵⁷ Author interview with Josh Engel, YouTube Education, May 2016. Creative Commons has begun to provide marking and branding opportunities for video (https://wiki.creativecommons.org/ wiki/Marking_your_work_with_a_CC_license#Example:_Video), but a wider palette may now be required. On the future of YouTube, see also Harrison Weber, "Inside Backstage: YouTube's Plan to Bring Photos, Polls, and Text to the Video Service," *Venture Beat*, August 24, 2016, online at: http:// venturebeat.com/2016/08/24/inside-backstage-youtubes-plan-to-bring-photos-polls-and-text-tothe-video-service/.

4. The effect of the use upon the potential market for or value of the copyrighted work.⁵⁸

MOOC creators often rely upon the fair use doctrine in the creation of their online courses, or sometimes, more specifically, in the use of one or more pieces of content in an online course that may not be accompanied by any formal license or permission to use that content from a putative owner or rightsholder. The challenge with relying on fair use in MOOCs that "implicate" owner's rights, as attorney and University of Virginia rights expert Brandon Butler has put it,⁵⁹ is that making such MOOCs, MROOCs, or even OER involves the risk that downstream use of those components relying on fair use could be somehow stopped or affected by a copyright claim. Solving this puzzle—squaring the circle—of applying Creative Commons licenses to content that deploys "fair use" doctrine for the use of some component materials is a challenge that remains for the strongest legal minds.⁶⁰ But one day, audiovisual productions may be able to be broken down by license type and reassembled by the computer—reconstituted by machine, in effect, automatically to exclude unlicensed content—and delivered in that fashion with the proper free master license as MOOCs/MROOCs, OER, and, ultimately, for YouTube and in Wikipedia.⁶¹

- 59 Brandon Butler, "Canaries in the Text Mine: Fair Use Rights and Text+Data Mining with Licensed Content," online at http://libra.virginia.edu/catalog/libra-oa:11676.
- 60 Alex Wild, "The Awkward Copyright Collision of Fair Use and Creative Commons," *Scientific American*, January 20, 2014, online at: http://blogs.scientificamerican.com/compound-eye/the-awkward-copyright-collision-of-fair-use-and-creative-commons/.
- 61 The Video and the Commons Working Group is busy developing one variation now: http://archive. org/pop/editor.html, based on an earlier project: http://popcorn-wiki.wmflabs.org/wiki/Main_ Page. And a Fall 2016 MOOC from New York University is being built around this technology. See: http://spintime.tv/.

^{58 &}quot;Society for Cinema and Media Studies Statement of Fair Use Best Practices for Media Studies Publishing," *Cinema Journal* 49, No. 4 (Summer 2010), online at: http://www.cmstudies.org/?page=fair_use&terms=%22fair+and+use%22 and http://www.cmstudies.org/?page=fair_use. See also: Patricia Aufderheide and Peter Jaszi, *Reclaiming Fair Use: How to Put Balance Back in Copyright* (Chicago: University of Chicago Press, 2011), online at: http://press.uchicago.edu/ucp/books/book/chicago/R/bo11671240.html; http://cmsimpact.org/program/fair-use/; http://onlinelearning.upenn.edu/fair-use-and-moocs-an-update/; https://ipclinic.org/2016/01/22/fair-use-moocs-and-the-digital-millennium-copyright-act-frequently-asked-questions/; and Pamela Samuelson, "Possible Futures of Fair Use," *Washington Law Review* (2015), online at: http://papers.srn.com/sol3/papers.cfm?abstract_id=2584180. See also, for background, Peter Decherney, *Hollywood's Copyright Wars: From Edison to the Internet* (New York: Columbia University Press, 2012). Decherney's companion MOOC on film history, embodying these principles, launches on edX in 2016.

The requirements in publisher/distribution platforms may be the last thing for day-today producers of MOOC content to satisfy, but in may ways the rights and licenses negotiated in the master agreements between the host institutions and these platforms are the very *first* thing we should be studying—they perhaps have as much impact as any other document or phase upon whether a MOOC becomes a MROOC or just stays a MOOC. Just as most television shows are not produced on spec and just as most good books are not written without contracts, online courses have publishers—edX, Coursera, FutureLearn, Canvas, Udemy—that play critical roles in the overall teaching and learning ecosystem.

In general terms these distribution agreements include sections on the background and intentions of the parties in the relationship; the terms or vocabulary to be used in the agreement; the parties' responsibilities and obligations to deliver and support online courses; the licenses and intellectual property (including trademarks and source codes) involved; the revenue/revenue sharing models that may apply; the term and termination provisions of the agreement; various representations and warranties and indemnifications; and bits on dispute resolution. It is useful to scour these distribution relationships (many of the agreements may now be found online) to examine when and where rights come into the picture-and how. The notion that the terms of these agreements should be kept from faculty or staff is primitive, unwise, and counterproductive-these are the faculty's publishers, in the digital age-and indeed universities would do well instead to have term sheets available for university faculty and staff interested in university dealings with these educational platforms as well as with additional online platforms and producers—YouTube, Vimeo, Facebook, WhatsApp, Instagram, Twitter, Amazon, and more-all of which can, and do, host and publish content for teaching and learning. They are not only the faculty's publishers, in fact; they are the institution's-and their distribution-of-knowledge deals are just as important as the mass digitization/distribution agreements that Google Books put forward and that the academic and library community analyzed in such deep detail a decade ago.⁶² These master agreements would do well to be annotated in a crowdsourced wiki and put online, as well.

Indeed, given their importance as the contractual foundation for the distribution/sharing of content online, these agreements' every word should bear close reading—some

⁶² Kaufman and Ubois, "Good Terms." See also: http://www.oclc.org/research/activities/ massdigpartnerships.html. For terms of service that might need additional textual analysis from an OER perspective, see: https://www.youtube.com/static?template=terms; https://www.facebook. com/terms; https://twitter.com/tos?lang=en; https://archive.org/about/terms.php; and more.

words being more equal than others. In the list of contract terms, for example, words like "Content," "Course," "Course Content," and "Courseware" are as important as "Intellectual Property Rights" and "Ownership"-and all require definitions that are clear to members of teaching and learning ecosystem. Indeed, as the university often requires faculty members to sign agreements with the university in order to codify the status of their ownership in their courses and courses' publication online, it is particularly important that faculty pay close attention to these terms as they are defined in this stage of our collective evolution as online course publishers. Do faculty own their own "course content"? Does the university own "the course"? Who owns the "courseware"? Who, in short, is creating and producing what-and who is granting and licensing what to whom? And for how long? Do faculty members deliver irrevocable use rights regarding their course content to the university upon the faculty's departure from the university? Will the university continue to have certain rights to offer their online courses on a platform if the teaching faculty member moves to another institution? And are these exclusive or nonexclusive rights being granted—to the university and the platform? The standard Coursera "Form of Release for Instructors and Guest Presenters" proffered to university partners, suggests faculty sign away these rights wholesale directly to the Coursera platform, asking for them to, in one case:

irrevocably grant Coursera, Inc. ("Company") the right and permission to use, store, host, publicly broadcast, publicly display, public [sic] perform, distribute, reproduce, and digitize any Content that I upload, share or otherwise provide in connection with my use of the Platform, including the right to use my name, voice, image of likeness (whether still, photograph, or video in connection therewith, and to edit, modify, translate or adapt any such content ("Content Enhancements") for the purposes of formatting or making accommodations to make content accessible to persons who have disabilities. I hereby grant Company, under any rights I have to Content Enhancements, a perpetual, non-transferable, sublicensable, royalty-free, fully paid-up, worldwide, exclusive license to use such Content Enhancements for the purpose of providing the Content on the Internet

Developing fair and appropriate ownership and licensing instruments for such important material requires great care and attention to language and meaning. One additional challenge is that, in the academy, video, which is now at the heart of most of these courses, remains a new and uncertain quantity. Even the new 2016 edition of the *MLA Handbook*, for example, a standard reference book for research paper form and practice issued by the Modern Language Association, is aflutter with confusion about how to refer to video and its platforms—should it be as a "source," "container," "service," "network," "archive," "publisher," "production company," "web site," or "player"—or what? The language for describing rich media can be elusive, especially for academic publishing types (and even for members of a . . . modern language association!). Though the comprehensive

Manual of Video Style that is to accompany this handbook, much of the fog and mist around video, we hope, will be dispelled.⁶³

The best practice to develop for these agreements is likely for faculty to own their courses and material—and that they grant or license their university certain rights with respect to its audio and video recording, publication, and distribution of all of that, certain exercises of which require faculty pre-approval. And that the university in turn grants certain rights in those audiovisual materials back to faculty members for as long as they are at the university. Faculty should have certain approval rights as regards the university distribution of their course/course content-online or otherwise. And the faculty member should have the ability to determine whether and how to license and more generally make accessible to the world the material that she creates and brings into it. This includes how to publish and distribute audio and video of the course on YouTube and other platforms besides edX-platforms that, regardless of their reach, these master agreements between platform and university as currently drafted often ignore. This also includes how best to apply innovative licenses to the material so that it can be re-distributed and reused without each user requesting University permission. And all rights that they do not grant to the university should be reserved by the faculty member, to do with what they think best-perhaps with the university's approval, approval that is not to be unreasonably withheld.

Apart from the terms in these agreements, those interested in the R in MROOCs would do well to study key passages from these agreement drafts in some detail. Language sections around "revenue models" are perhaps the most critical, as these models— especially (but not exclusively) with for-profit platforms—will likely drive the tensions between open and not-open, free and non-free, moving forward. Other important sections to scrutinize include:

- "Course Offerings," including the "Course Lifespan" and "Content Pullout" subsections
- "Third-Party Claims"
- "License Grants and Intellectual Property"
- "Copyright Clearance"
- "Trademarks"

⁶³ *MLA Handbook* (8th edition) (New York: Modern Language Association of America, 2016), pp. 31, 42, 57. The MLA was founded in 1883, before the first century of film even began. See, for some clarifications, Paul Gerhardt and Peter B. Kaufman, "Film & Sound in Higher and Further Education: A Progress Report with Ten Recommendations" for the UK's JISC Film & Sound Think Tank http:// www.jisc.ac.uk/whatwedo/programmes/filmandsound.aspx; Sian Barber, *Using Film as a Source* (Manchester: Manchester University Press, 2015); and Peter B. Kaufman, *The Columbia Manual of Video Style*.

- "Assignment"
- and again, the "Form of Release for Instructors and Guest Presenters"

Some template agreements from MOOC platform providers actually advocate for Creative Commons—one such "encourages institutions to license content on the Platform under the Creative Commons' Attribution-NonCommercial-ShareAlike license (CC BY-NC-SA) or another appropriate open license." The FutureLearn site even has a navigation-bar tab meant to promote "our openness principles"—"Opening up educational resources for use and re-use is a moral good and our staff and partners should look to contribute to the stock of open educational resources" (*https://about.futurelearn.com/ terms/openness/*)—although the general terms of use for content (*https://about.futurelearn.com/terms/*) hardly conform to that rhetoric. The license edX requests from the university or home institution can reach even further, if one parses it carefully:

Institution will grant to edX a limited, non-transferable, sublicensable, royaltyfree, fully paid-up, worldwide, non-exclusive license to the InstitutionX course content and content improvements for use in connection with the Platform and any services provided hereunder. The foregoing license will include the right to reproduce, modify for formatting purposes, adapt, translate, distribute transmit, publicly display, publicly perform and otherwise disseminate and make available the course content and improvements.

edX's agreements can contain an appendix Copyright License Agreement that provides greater detail about license terms and conditions, including restrictions on edX's ability to modify course content without approval, which of course should it remain in force would make any sublicense with a liberal Creative Commons license impossible.⁶⁴

Detailed exegesis of these agreements is not that daunting, given the legal talent at and about various universities and cultural organizations. And it is not only the MOOC platforms' agreements that could benefit from close reading. Everywhere that can distribute MOOC content—YouTube, Vimeo, Wikipedia, Facebook, WhatsApp, Twitter, the Internet Archive, BitTorrent—could have their Terms of Service examined. The benchmark for all of that examination work should be the Terms of Service on offer at Wikipedia, reprinted below (where all of this content should belong, anyway).

Most of Wikipedia's text and many of its images are dual-licensed under the Creative Commons Attribution-Sharealike 3.0 Unported License (CC-BY-SA)

⁶⁴ These agreements are available online scattered in various places, including: http://chronicle. com/article/Document-Examine-the-U-of/133063/; https://assets.documentcloud.org/ documents/400864/coursera-fully-executed-agreement.pdf; and http://paulolivier.dehaye.org/ coursera-maryland.pdf. See also the promise of proper advocacy in https://open.edx.org/blog/ open-edx-releases-creative-commons-licensing and Cable Green, "edX Makes It Easy for Authors to Share under Creative Commons," June 2, 2015, online at: https://creativecommons.org/2015/06/02/ edx-makes-it-easy-for-authors-to-share-under-creative-commons/.

and the GNU Free Documentation License (GFDL) (unversioned, with no invariant sections, front-cover texts, or back-cover texts). Some text has been imported only under CC-BY-SA and CC-BY-SA-compatible license and cannot be reused under GFDL; such text is identified either on the page footer, in the page history or on the discussion page of the article that utilizes the text. Every image has a description page that indicates the license under which it is released or, if it is non-free, the rationale under which it is used.

Contributions remain the property of their creators, while the CC-BY-SA and GFDL licenses ensure the content is freely distributable and reproducible.⁶⁵

The good news is that there are resources for all of this being built online now—from excellent guides in the higher education realm to Creative Commons's own toolkit.⁶⁶ But a good deal more work needs to be done around video, education, and free licensing for sure—including, as one certain next step, integrating OER principles in other new guides and toolboxes on offer now to MOOC producers.⁶⁷ And needless to say, the licenses that govern the use of the online course materials should be matched by the licenses that govern media and promotional materials designed and distributed to promote them, so that electronic press kits and other marketing collateral can work hand in glove online with other key course assets.

⁶⁵ https://en.wikipedia.org/wiki/Wikipedia:About#Trademarks_and_copyrights.

⁶⁶ https://www.jisc.ac.uk/guides/intellectual-property-rights-in-a-digital-world https:// creativecommons.org/platform/toolkit/; https://github.com/creativecommons/mp/issues; http:// policy.lumenlearning.com/.

⁶⁷ http://dltoolkit.mit.edu/.

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V. OPEN BY DEFAULT: Five Guiding Principles

The challenge of making things "open" has involved a bit of semantic play. There have been, in the past 25 years or so, multiple levels of progress—first to put content online, next to put it online for free, next to put it online for free with a CC license or with another generous license, and lastly to put it online for free with the most liberal types of license that facilitates that content's full integration into the commons. Passing into each of these circles has involved, as it should, some self-congratulations on the part of each licensor making progress.

When OCW first started (to reprise), Creative Commons and Wikipedia and our general knowledge about how to enable sharing were not as advanced as they are today. This became apparent some years ago when educators and producers from MIT and Intelligent Television endeavored to fit popular MIT Open CourseWare lecture videos about Isaac Newton's laws of physics into the appropriate articles in Wikipedia. Wikipedia editors told us we had to renegotiate the standard MIT OCW terms of service and all the relevant agreements with MIT physics lecturer Walter Lewin before Wikipedia would

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Languages 👘	Summary (edit)	
	Description English: MIT Prof. Walter Lewin explains Newton's third law of motion.	
	Date September 20, 1999. From MIT OCW, retrieved December 23, 2010.	
	Source "Newton's First, Second, and Third Laws". MIT Course 8.01: Classical Mechanics, Lecture 6&, (14:11-16:00). Cambridge, MA, USA.	
	Author Walter Lewin	
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	If you have questions about the archived correspondence, please use the OTRS noticeboard. Ticket link: https://licket.wikimedia.org/otrs/index.pl?Action=Ag TicketNumber=2011051010013473g	jentTicketZoom&

ILLUSTRATION IX: OCW/OER Video in Wikipedia (from Walter Lewin's course, "Classical Mechanics")

allow MIT's video into the encyclopedia. Intelligent Television post-produced video of the lectures to fit them into Wikipedia articles, and the terms were reworked with Professor Lewin's approval and blessing—but the rights and permissions statement published in the encyclopedia looks (as it should) more like an exception was made to include these videos and OCW in Wikipedia, rather than, as should obviously be the case, the rule.⁶⁸

That OCW should exist as an artifact with some imperfection in "openness" or "free-asin-freedom" today is no travesty. Far from it. The entire universe of digital scholarly and educational resources—from JSTOR and HathiTrust to the Khan Academy and beyond provides invaluable knowledge and information to millions worldwide—and much of that is free of any cost. Yet one cannot but wonder, at a time when so much is wrong with the world, whether a little tweak—a goose, a nudge—in the licensing requirements for open courseware and open access could not be effected, so that the youngest descendants on the tree of knowledge could become fully blessed by becoming fully free.⁶⁹ Stallman has noted how software called open-source is more often than not free; but educational projects described as open courseware and open access are more often than not, not.⁷⁰ How much good it would do to make open courseware open as in freedom.

Iterating toward openness in this regard would involve applying best practices to the past as well as the present and future. In the case of Walter Lewin, MIT, MIT OCW, and Wikipedia, in 2010 and 2011 Intelligent Television and OCW together with Wikipedia editors and board members asked Lewin for permission to adapt his existing MIT OCW license to accommodate Wikipedia's more liberal requirements—and he did, in a series of generous emails.⁷¹ Systematically exploring how to extend the license from

70 Stallman, "Libre Software, Libre Education."

⁶⁸ And the video had to be transferred into the F/LOSS video codec Ogg Theora. https://en.wikipedia. org/wiki/File:Thirdlaw.ogg; https://en.wikipedia.org/wiki/Newton's_laws_of_motion. For the underlying OCW rights info, see: http://ocw.mit.edu/help/faq-intellectual-property/.

⁶⁹ To establish, say, a video/OCW equivalent for this: https://osc.hul.harvard.edu/programs/journalflipping/. The tree of knowledge, it should be said, is at the center of the heart of the most popular and successful moving-image production of all time, James Cameron's film "Avatar." The secret to healing in the movie is connecting to the record of the past. See Peter B. Kaufman, "Toward the New Enlightenment," keynote address delivered at the opening of Prestocentre, Hilversum, the Netherlands, March 14, 2011, online at: http://www.slideshare.net/PrestoCentre/towards-a-newenlightenment-moving-images-recorded-sound-and-the-promise-of-new-technology.

^{71 &}quot;Wikimedia has received an e-mail confirming that the copyright holder has approved publication under the terms mentioned on this page. This correspondence has been reviewed by an OTRS member and stored in our permission archive. The correspondence is available to trusted volunteers as ticket #2011051010013473." The presence of these lecture clips on Wikipedia became even more important after MIT withdrew Lewin's lectures from OCW online because of a sex scandal with online learners in which Lewin was reportedly involved. http://tech.mit.edu/V134/N60/walterlewin.html and http://tech.mit.edu/V134/N62/lewin.html The impermanence of these video lectures—of MOOCs—for whatever reason should give us all pause; and it may be another argument for more liberal licenses that facilitate unrestricted duplication. See: http://www.openculture.com/2016/06/a-handy-guide-on-how-to-download-old-coursera-courses-before-they-disappear.html. On video impermanence more generally, the adverse effects it always presents, see Jeff Ubois, "Finding Murphy Brown: How Accessible are Historic Television Broadcasts?" Journal

early and contemporary OCW lectures to encompass these fuller freedoms could be an extraordinary task to assign to a production team—one that would benefit world knowledge forever.

Re-clearing past productions like this would be relatively straightforward—more on that below. The "Eyes on the Prize" documentary series had to be re-cleared for continued broadcast and DVD distribution in recent years—the Ford Foundation sponsored the process—with funds that amounted to a small fraction of the original production budget, but which were substantial nonetheless.⁷² The larger point here involves regret that the process had to be undertaken at all—and also that a second effort at clearing was more expensive to conduct years later than it would have been at the time, had the knowledge and the sense of a longer future been present at the moment of production.

Looking forward with all the knowledge we can gain from hindsight, we might ask if it is more expensive to produce MOOCs from the get-go that are freely licensed and licensable. Put another way, is making a MROOC more expensive than making a MOOC? Not much, if at all. The illustration below shows line items from a MOOC production budget of the sort production teams have produced under my direction. One doesn't need extra cameras or lights or software to make MROOCs. Only a select few line items—legal costs; rights acquisition; insurance policies; accounting; staff—in a MOOC budget are affected by the pursuit of open licenses, and these, if the right licenses are embraced at the start—and appropriate and thorough briefings given to faculty members, the pro-duction team, and administrators about research, clearance procedures, citations, and record-keeping—only marginally or hardly at all.⁷³

of Digital Information 7, No. 2 (2006), still online at: https://journals.tdl.org/jodi/index.php/jodi/ article/view/172. There are various ways to better archive all our work and future-proof it with the commons in in mind. See Brian Stelter, "C-Span Puts Full Archives on the Web," *New York Times*, March 15, 2010, online at: http://www.nytimes.com/2010/03/16/arts/television/16cspan.html.

⁷² Part of the story of "Eyes on the Prize is the value of the music in telling the story. "Music was a part of the [Civil Rights] movement in a way that you cannot separate," Rena Kosersky, music clearance supervisor for "Eyes on the Prize," has said. Documentary filmmaker and programmer Thom Powers has written about Bernice Johnson Reagon, a member of the Student Nonviolent Coordinating Committee's Freedom Singers, recalling in one episode how "during the thick of the struggle there was more singing than talking." Clearing licenses for 130 songs for broadcast and DVD distribution took some doing. See Thom Powers, "Eyes on the Prize' Off the Shelf," *Boston Globe*, January 16, 2005, online at: http://archive.boston.com/news/globe/ideas/articles/2005/01/16/eyes_on_the_prize_off_the_shelf/ and http://www.docnyc.net/news/case-study-on-savedocs-eyes-on-the-prize/.

⁷³ See also Kenn Rabin's advice for the International Documentary Association, "Raiding the Lost Archives, Wisely and Legally: A Short Guide to Clearing Copyrighted Footage," online at: http://www.documentary.org/magazine/raiding-lost-archives-wisely-and-legally-short-guideclearing-copyrighted-footage; and Sheila Curran Bernard's resources online at: http://www. sheilacurranbernard.com/resources-archival-storytelling.html.

ILLUSTRATION X: MOOC Budgets, Effects of Free Licenses Upon

PRODUCTION
Director
Camera w/operator
Audio engineer
Lighting technician
Hair/makeup
Assistant

POST-PRODUCTION

A–3-camera, b-roll, images, music B–2-camera, b-roll, images, music C–1 camera, b-roll, images, music Titling

Animation Transcription

DISTRIBUTION
MOOC platform
YouTube
Websites
Social media

THIRD-PARTY
Equipment rental
Location fees
Legal
Rights acquisition
Insurance
Accounting
Transportation
Digital storage

OVERHEAD

Staff G & A

GQA

Thus a future-oriented vision is for this one little sprig on the media tree of life to one day flower: to flower with fully open online courses from major universities whose administrations are committed to the idea and who execute it to perfection for millions of learners. Perhaps the rationale that Stallman has proffered—that education should be a domain of freedom—is reason enough for these kinds of commitment to be made. Perhaps there will be other reasons—good brand extension, good public relations, a form of supporting faculty—that these courses will be so published. And perhaps a proper ecosystem will be built where university administrators, faculty, staff, rightsholders, and other third-parties—book publishers, film and television producers, underwriters and advertisers and stakeholders yet to be defined—will all come together to enrich each other in many ways. But why wait?

The question remains—will people come? If we build it, will they come? Will a cadre of hungry self-educators seek out these courses and try to copy and keep and share and adapt materials in these MOOCs for the benefit of each other and mankind?

If the past is any guide, they will. The early history—the foundation—of cinema and radio, when screen culture was just beginning to take root a century ago, is indicative. In early cinema, media consumers in theaters multitasked endlessly, interacting with the screen, lecturers, musicians, and other audience members throughout the playing time of a

picture.⁷⁴ Early filmmakers treated their media as unfinished and customizable—and wanted it as their own. Historians of film tell us, for example, that the great D.W. Griffith's "incessant adding and subtracting of footage implies that he saw these films as *essentially open texts*, capable of showing one face to Boston and another to New York. . . . By the late silent period, exhibitors could choose alternate endings for a number of major films. Some audiences, viewing Garbo as Anna Karenina in Clarence Brown's "Love" (1927), saw Anna throw herself under a train. Other theaters showed Anna happily reunited with Count Vronsky."⁷⁵ That the bulk of modern Internet usage today involves time-shifting watchers of Netflix and collecting and curating video on file-sharing networks should tell us something as well.⁷⁶

To imagine this fairer future for media, the long historical perspective is crucial. While the challenges that Internet technology presents can seem huge to us, in fact there has always been a sense of challenge present with technological innovation. Fred von Lohmann, previously with the Electronic Frontier Foundation and now at Google, has noted that the Internet is one of the biggest disruptive innovations in copyright—but it is certainly not the first or only one. "People forget that broadcast radio, cable television, the VCR, the player piano—every one of those technologies created a panic among copyright owners, incumbents of the era, upon their introduction."⁷⁷ Many of the institutions that grew up at that time—institutions that seem to have always been present—arose as a function of earlier copyright panics, and prove that we are constantly adapting. And in the adaptation mode in which we exist and make our progress, a set of five guiding principles is in order—a set of deliverables and processes that include items to feature on a MOOC-maker to-do list.

⁷⁴ Roy Rosenzweig, *Eight Hours for What We Will: Workers and Leisure in an Industrial City*, 1870-1920 (Cambridge: Cambridge University Press, 1983).

⁷⁵ Richard Koszarski, An Evening's Entertainment: The Age of the Silent Feature Picture, 1915-1928 (Berkeley: University of California Press, 1990), p. 137 (emphasis added). See also: Eileen Bowser, The Transformation of American Cinema 1907-1915 (Berkeley: University of California Press, 1990) and Melvyn Stokes and Richard Maltby, American Movie Audiences: From the Turn of the Century to the Early Sound Era (London: British Film Institute, 1999). That Anna Karenina by Leo Tolstoy arises in this handbook is a reminder that Lev Nikolaeyich may have been the first of many great educators to commit to open content. He renounced copyright in most of his work before his death. See Rosamund Bartlett: Tolstoy: A Russian Life (New York: Houghton Mifflin, 2011), with the key section online here: https://books.google.com/books?id=RubcQ7xl76cC&dq=Tolstoy+renounces+copyright& source=gbs_navlinks_s.

⁷⁶ https://www.sandvine.com/trends/global-internet-phenomena/; http://www.cisco.com/c/ dam/en/us/solutions/collateral/service-provider/visual-networking-index-vni/complete-whitepaper-c11-481360.pdf and http://www.digitalmusicnews.com/2015/07/16/if-you-think-piracy-isdecreasing-you-havent-looked-at-the-data-2/.

⁷⁷ Fred von Lohmann, "On Copyright 2010," interview online at: http://www.intelligenttelevision.com/.

1. Map, annotate, and archive licensing and rights instruments.

Many people and institutions today are incentivized already to put their material online and to make that material more openly available for use and re-use. They might not have their rights houses fully in order, and they might not label what they are doing with a formal OER brand, but they are seeking to make-and making-their material more available. Rightsholders are all concerned, as a rule, with the same thing-clear definitions, clear rules of the road, ways for people who invest to be compensated, and no surprises. In many ways, setting out the obstacles to making MOOCs more accessible—building, along with this handbook and others, a full toolkit to putting content online and then into OER-should be job one for advocates and funders in the years ahead.⁷⁸ Such a toolkit should include all kinds of sextants, compasses, and telescopes-especially a set of richly annotated production contracts and agreements, for example, where the language representing barriers to making material more openly available could be identified and highlighted as such, and boilerplate language about institutional commitments to openness that can be developed and copied. Cornell law professor James Grimmelman launched such a model effort to annotate the Google Book Search agreement, for example.⁷⁹ This is the key-a library of foundational documents, annotated for promoting free/libre access to online education.

2. Experiment across media and platforms.

The development and production of online learning initiatives takes place in a crucible of experimentation. In many ways today we are traveling up and down the Rhine river valley in the earliest years of print. Princeton historian and media scholar Anthony Grafton recounts how printers would experiment with printing all kinds of things during these years—sometimes becoming so competitive as to bop each other on the head in the emerging cutthroat business (while printing Bibles, no less).⁸⁰

For online education, we are still in those earliest years of movable type when it comes to video, notwithstanding the many achievements of educational broadcasting. The key to more achievements in this area is, predictably perhaps, more experimentation. MIT Open CourseWare sage and online video veteran Shigeru Miyagawa describes his experience teaching an on-campus course about the history of Japan at the same time as he was teaching an online course for Open CourseWare—at the same time as

⁷⁸ This work can build on earlier guides including *Otherwise Open: Managing Incompatible Content within Open Educational Resources* (Version 1.0, September 1, 2009) (San Francisco: Creative Commons, 2009), online at: http://learn.creativecommons.org/productions/ and Peter Hirtle, Emily Hudson, and Andrew T. Kenyon, *Copyright and Cultural Institutions: Guidelines for Digitization for U.S. Libraries, Archives and Museums* (Ithaca: Cornell University Library, 2009), online at: http://ecommons.cornell.edu/ handle/1813/14142.

⁷⁹ Online at: http://thepublicindex.org/.

⁸⁰ Anthony Grafton, "The History of Media and Social Change," The Intelligent Channel on YouTube, https://youtu.be/VosaOdqbVf4.

he was producing and teaching a MOOC. Miyagawa's teaching trifecta told him much about how students learn and process information—and about refining the balance of media and teacher talk.⁸¹ Needless to say, perhaps, the in-person, OCW, and MOOC versions of these courses can continue out to the world in concentric circles, distributed in the firewalled university network, via private access to some of the media, then the edX platform, and then across the even more publicly accessible platforms of YouTube and social media—and ultimately Wikipedia. Because for everyone to share in the fruits of this kind of experimentation as well as the process of it, the courses and the lessons need to be published freely and put online forever.

Experimentation should also include technology—and the various platforms they can run on. If one were to represent a position of absolute orthodoxy here, the technologies involved in online courseware, video codecs and players included, should be conceived and raised in an open-source universe. Many of the most exciting technologies out of which educational annotation and video annotation in particular are being developed— Mediathread from Columbia University, for example, as well as tools being developed by Harvard and edX itself⁸²—are moving in that direction, given that many technology developers are sympathetic to the open-source movement.

3. Share knowledge.

In education, information is our friend—the more we have of it, the better equipped we will be to make judgments that affect the future of education. It's a virtuous circle. For this reason and others, documentation and best practices should be shared among producers—and nondisclosure agreements and secrecy concerning projects about the future of education really have no place. Beyond sort of defensively sharing—information about edX contracts, Coursera contracts, Udemy contracts, and the like—producers should aggressively court other producers for roundtables and other institutional dialogues. In New York City, a number of producers have established the regular New York City MOOC Meet-Up, and an international annual Learning With MOOCs conference has taken wing. Equally exciting are lessons the MOOC community can learn from activist video organizations such as Witness and the Bay Area Video Coalition—BAVC, for example, markets a Fair Use Fairy Godmother who can help producers with their own rights challenges, free of charge.⁸³

⁸¹ Miyagawa, "Open CourseWare and MOOCs," November 6, 2014, https://www.youtube.com/ watch?v=fGnaie4RXEg.

⁸² http://mediathread.columbia.edu/; http://annotation.chs.harvard.edu/video.php; http://web.mit. edu/xtalks/Phil-Desenne-HarvardX.pdf; soon: https://hypothes.is/blog/hypothes-is-secures-1-9mof-new-funding/.

⁸³ https://bavc.org/events/fair-use-fair.

4. Grow stakeholders.

Partnering with other institutions that face similar challenges in online education makes a great deal of sense—but especially when institutions are seeking to produce MROOCS, not only MOOCs. History and science and technology museums and other public education institutions make great partners for universities, as part of their mission or mandate is making their knowledge—their collections and academic and curatorial expertise—more widely known to the world.⁸⁴

5. Advocate/push the envelope—iterate toward openness.

Pressure toward freedom within and without an institution can work to good effect through and on the university's own copyright office, its general counsel, its teaching and learning centers: all the general nodes that should be on the side of free expression and, generally speaking, openness. Institutions whose staff support national and international initiatives like Open Access Week, OpenCon, Wikimania, and others publicly stake claims to the open education (truly open education) movement—and encourage others to do the same.

Within the university administrative hierarchy and the offices concerned with online learning and rights policy more generally, the university should recognize that it should work with faculty and staff to share knowledge along the lines of missions that MIT and Harvard and others describe in their mission statements. Indeed, university and faculty should push together to try to license these courses—in which both have such major stakes—under the most liberal of licenses possible. Rather than the university insisting a faculty member in effect indemnify the university from infringement actions regarding so-called third-party content, as in this language from one institution—

I represent and warrant that . . . exercise of the rights granted herein will not infringe upon any copyright, proprietary right or any other right of any third party.

the institution should work with that faculty member to try, at course inception and over time, to license all materials in the course so that the work product as a whole could reach the freer two domains of CC.

In this sense, systematically extending licenses that have governed OCW and OER to date to include freer grants of rights, as noted above, would bear enormous fruit—and teach us something in the process about how best to license moving forward. This

⁸⁴ See: Harry Verwayen, Martijn Arnoldus, and Peter B. Kaufman, "The Problem of the Yellow Milkmaid: A Business Model Perspective on Open Metadata," *Europeana White Paper* No. 2 (The Hague), 2014, online at: http://pro.europeana.eu/files/Europeana_Professional/Publications/ Whitepaper_2-The_Yellow_Milkmaid.pdf; Joris Pekel, "Democratising the Rijksmuseum," online at: http://pro.europeana.eu/files/Europeana_Professional/Publications/Democratising%20the%20 Rijksmuseum.pdf; and also the Yellow Milkmaid Tumbler post: http://yellowmilkmaidsyndrome. tumblr.com/.

could happen systematically within the OCW world just by adapting a few words in each OCW faculty agreement that has been signed at and with each university. On the excerpt, below, from a typical MIT OCW 2008 release, for good illustration, the 2008 restrictions that ought to be struck now in 2016 are highlighted in red:

I understand and acknowledge that through the MIT OCW program the Materials will be available to third parties who will be granted a perpetual, royalty free, non-exclusive license to use, reproduce, distribute, translate and modify the Materials for educational, **non-commercial**, **and non-monetary** gain.⁸⁵

Educational institutions, in a word, should be acting like this, constantly iterating toward openness, for the creation of a giant, safe, and permanent public square—or sphere—of conversation and debate, and doing this with legacy content as well as new productions. This also means that good licenses—even on new MOOCs—can be freed over time, too, or piece by piece, if doing so all at once at the beginning is too difficult. One can imagine freeing up lecture video files—what I call, harking back to the book comparison, above, the spine of many of these courses—and then the other surround-ing pieces later. Or, much as grant requirements mandate more and more for feder-ally funded U.S. research, the whole work product can be released freely after, say, a year, precisely to help build the worldwide collective of knowledge.⁸⁶ Iterating, in short, toward openness.⁸⁷

Only several times in our pre-Internet history have we had the ability to try something this ambitious. Look at what we can do when we assemble great minds together—as happened at the greatest library in the ancient world. "Starting as early as 300 BCE," we have been told, "the Ptolemaic kings who ruled Alexandria had the inspired idea of luring leading scholars, scientists, and poets to their city by offering them life appointments at the Museum"—located right in the center of the city—featuring a library where "most of the intellectual inheritance of Greek, Latin, Babylonian, Egyptian, and Jewish cultures had been assembled at enormous cost and carefully archived for research."

⁸⁵ The full original "Intellectual Property License and Release Form—MIT Participant" from MIT OCW is reproduced as Appendix I.

⁸⁶ See the magisterial work of Effie Kapsalis, "The Impact of Open Access on Galleries, Libraries, Museums, and Archives," Smithsonian Institution, April 27, 2016, online at: http://siarchives.si.edu/ services/publications-resources and Michelle Light, "Controlling Goods or Promoting the Public Good: Choices for Special Collections in the Marketplace," *RBM: A Journal of Rare Books, Manuscripts, and Cultural Heritage*, 16, No. 1 (Spring 2015), online at: http://rbm.acrl.org/content/16/1/48.full. pdf+html.

⁸⁷ We owe the use of this term, as we owe him for so much great work in this area, to David Wiley. See: http://opencontent.org/blog/ and also the invaluable collection of readings he has curated on these themes and published as *An Open Education Reader*, available online freely at: https://opened. pressbooks.com/.

Euclid developed his geometry in Alexandria; Archimedes discovered pi and laid the foundation for calculus; Eratosthenes posited that the earth was round and calculated its circumference to within 1 percent; Galen revolutionized medicine. Alexandrian astronomers postulated a heliocentric universe; geometers deduced that the length of a year was 365 ¼ days and proposed adding a "leap day" every fourth year; geographers speculated that it would be possible to reach India by sailing West from Spain; engineers developed hydraulics and pneumatics; anatomists first understood clearly that the brain and the nervous system were a unit, studied the function of the heart and the digestive system, and conducted experiments in nutrition. The level of achievement was staggering.⁸⁸

This great opportunity now, to create the giant Alexandrian Library/Museum or Enlightenment encyclopedia, is one that deserves our support, especially in times like these. The stakes are actually incredibly high, as a number of thinkers and advocates have warned us. Do we really want to cede this corner of the Internet—itself only a corner of the world media?⁸⁹ It may be the only terrain we have left.⁹⁰ Efforts are underway now, especially in the United Kingdom and the Netherlands, to establish a so-called public sphere—or "public

^{88 &}quot;The Alexandrian library was not associated with a particular doctrine or philosophical school; its scope was the entire range of intellectual inquiry. It represented a global cosmopolitanism, a determination to assemble the accumulated knowledge of the whole world and to perfect and add to this knowledge." Stephen Greenblatt, *The Swerve: How the World Became Modern* (New York: W.W. Norton, 2011), pp. 86-88, 280. Ptolemy III (r. 246-221 BCE), according to Greenblatt, "is said to have sent messages to all the rulers of the known world, asking for books to copy."

⁸⁹ Monroe E. Price, *Television, the Public Sphere, and National Identity* (Oxford: Clarendon Press, 1995) and Cass R. Sunstein, "Television and the Public Interest," online at http://scholarship.law.berkeley. edu/californialawreview/vol88/iss2/9/. Price, a professor law and student of Soviet and other national methods of thought control, writes: "For any society that seeks to achieve a substantial degree of democratic participation, the structure of the communications system is integrated with the functioning of the political system. That is why it is particularly vital to have meaningful public debate about any law that alters the relationship among principal elements of communications systems and between government and the private systems of communication, or even the balance of power between the makers and distributors of information." I would submit that cultural and educational institutions—MOOC publishers—are makers and distributors of information today, in the digital age, and thus may be "principal elements of communications systems" themselves.

⁹⁰ Jurgen Habermas speaks about the new ways in which we are able now to directly affect, for the better, the power structure of the public sphere and deliberative politics worldwide through the production and redistribution of media. Jurgen Habermas, *The Structural Transformation of the Public Sphere: An Inquiry into a Category of Bourgeois Society*, translated by Thomas Burger with the assistance of Frederick Lawrence (Cambridge: MIT University Press, 1991), and Habermas, "Political Communication in Media Society" online at: http://www.habermasforum.dk/index. php?type=news&text_id=341. Vaclav Havel's approach to media as a persecuted and censored dissident in pre-1989 Czechoslovakia was similar. See Havel's inspirational "Letter to Dr. Gustav Husak, General Secretary of the Czechoslovak Communist Party," in Havel, *Living in Truth: Twenty-Two Essays Published on the Occasion of the Award of the Erasmus Prize to Vaclav Havel*, edited by Jan Vladislav (Amsterdam: Meulenhoff, 1986), online now at: http://www.vaclavhavel.cz/showtrans. php?cat=eseje&val=1_aj_eseje.html&typ=HTML, and quoted at length in Peter B. Kaufman, "Two Prague Publishers," *Scholarly Publishing 22* (No. 3), April 1991.

space"—for public-service and educational content.⁹¹ Visionaries at cultural and educational institutions and in journalism and other fields are now joining cutting-edge leaders in audiovisual production, so we may actually be getting somewhere. But the forces that line up to shut down these kinds of experiments—often led by rightsholders seeking to monetize content before everything is available online—are strong: they put the kibosh on an early, majestic experiment at the BBC in 2005 and have been busy before and since.⁹²

Ultimately, the question for MOOC producers becomes: is the MOOC serving you—or vice versa? If the world is our customer, and if we, at all of our celebrated institutions, are vanguard producers, why not also serve up courses then that address the main challenges we face together as homonids/*Homonidae*: MOOCs across disciplines, as MOOC founder George Siemens is now calling for, that address education for the mind, body, and the soul—what the Jesuits call *cura personalis*?⁹³ There are, no doubt, a lot of top-ics that online courses yet to be built that could address essential questions of our day via a multidisciplinary perspective. American Foreign Policy; The History of Violence in America; The Role of Money in American Politics—these are just a few. Imagine drawing together experts from a variety of fields—history, religion, ethics, philosophy, psychology, politics—to teach such courses, courses co-produced by multiple institutions and not siloed for one, all for the greater good of mankind. That day, no doubt, will come.

92 David Puttnam's speech at the launch of the BBC Creative Archive in London in 2005 is available online at: http://www.bbc.co.uk/creativearchive/news/news_april05.shtml. See also: Becky Hogge, "Meet Mr. Rights," *The Guardian*, September 20, 2004, online at: https://www.theguardian. com/technology/2004/sep/20/mondaymediasection.bbc. My speech at the launch of the Creative Archive is also online here: http://www.bbc.co.uk/creativearchive/news/news_april05.shtml. See also: Meredith Filak Rose, "The Growing List of How the Copyright Office Has Failed Us," August 8, 2016, online at: https://www.publicknowledge.org/news-blog/blogs/the-growing-list-of-how-thecopyright-office-has-failed-us and Ben Tarnoff, "The Internet Should Be a Public Good," https:// www.jacobinmag.com/2016/08/internet-public-dns-privatization-icann-netflix/.

^{91 &}quot;A Future for Public Service Television: Content and Platforms in a Digital World. A Report on the Future of Public Service Television in the UL in the 21st Century" (2016), online at: http://futureoftv. org.uk/. This inquiry was chaired by Lord (David) Puttnam, the film and television producer ("The Killing Fields," "Chariots of Fire," "Midnight Express"). See also: Becky Hogge, "How the BBC Can Create a Better Digital Public Sphere," July 19, 2016, online at: https://www.opendemocracy.net/ ourbeeb/becky-hogge/how-bbc-can-create-better-digital-public-sphere; James Bennett, "Create Public Service Algorithms," part of "100 Ideas for the BBC: Imagining a Bolder Future for Public Service Broadcasting" (2015), online at: https://www.opendemocracy.net/100ideasforthebbc/blog/2015/09/14/create-public-service-algorithms/; Gerard Ryle, "How the Panama Papers Journalists Broke the Biggest Leak in History," TED Talk, June 2016, online at: http://www.ted. com/talks/gerard_ryle_how_the_panama_papers_journalists_broke_the_biggest_leak_in_history#t-439315; and Brewster Kahle, "Locking the Web Open: A Call for a Decentralized Web" (June 2016, Decentralized Web Summit), online at: http://techlifeweb.com/brewster-kahle-locking-the-web-open-a-call-for-a-new-decentralized-web-decentralized-web-summit-2016/.

⁹³ George Siemens, "Being: Countering the Move to Technologize Humanity," keynote presentation, LEARNING WITH MOOCS 2015, October 2, 2015, online at: https://youtu.be/Gz6GxseTviY. The connection to the Jesuit world may have some merit, given the foundational work of Jesuit Athanasius Kirchner exploring the potential of the moving image almost 500 years ago. See: http:// bibliodyssey.blogspot.com/2008/09/ars-magna-lucis-et-umbrae.html. Maybe Kirchner knew all this would happen.

In the meantime, this handbook is trying to suggest, to paraphrase a communications sage from the old days, that the license is the message. The form, ironically, is now important and forever will be important, for in the end it's about taking control of our media and our lives online. We are publishing for the world here, using publication and dissemination methods and now ideally licenses that truly serve this wider world. Does the rest of the world have any right to this knowledge? Do we have any obligation to share it? We live once. But our problems live on. So in the end, what we do with our knowledge—how we share it—may be as important as what we think we know.





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