

# Educational, Psychological, and Behavioral Considerations in Niche Online Communities

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A volume in the Advances in Social  
Networking and Online Communities  
(ASNOC) Book Series

**Information Science**  
**REFERENCE**

An Imprint of IGI Global

Managing Director: Lindsay Johnston  
Production Manager: Jennifer Yoder  
Development Editor: Austin DeMarco  
Acquisitions Editor: Kayla Wolfe  
Typesetter: John Crodian  
Cover Design: Jason Mull

Published in the United States of America by  
Information Science Reference (an imprint of IGI Global)  
701 E. Chocolate Avenue  
Hershey PA 17033  
Tel: 717-533-8845  
Fax: 717-533-8661  
E-mail: [cust@igi-global.com](mailto:cust@igi-global.com)  
Web site: <http://www.igi-global.com>

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Library of Congress Cataloging-in-Publication Data

Educational, psychological, and behavioral considerations in niche online communities / Vivek Venkatesh, Jason Wallin, Juan Carlos Castro, and Jason Edward Lewis, editors.  
pages cm

Includes bibliographical references and index. Summary: "This book examines the presence of online communities centered around niche topics of interest and the impact of these virtual spaces on community members, offering perspectives from interdisciplinary fields such as sociology, psychology, and education"-- Provided by publisher. ISBN 978-1-4666-5206-4 (hardcover) -- ISBN 978-1-4666-5207-1 (ebook) -- ISBN 978-1-4666-5209-5 (print & perpetual access) 1. Non-formal education. 2. Educational innovations. 3. Online social networks. 4. Internet--Social aspects. 5. Internet in education. I. Venkatesh, Vivek, 1976-  
LC45.3.E37 2014  
371.33'44678--dc23

2013046349

This book is published in the IGI Global book series Advances in Social Networking and Online Communities (ASNOC) (ISSN: 2328-1405; eISSN: 2328-1413)

British Cataloguing in Publication Data

A Cataloguing in Publication record for this book is available from the British Library.

All work contributed to this book is new, previously-unpublished material. The views expressed in this book are those of the authors, but not necessarily of the publisher.

For electronic access to this publication, please contact: [eresources@igi-global.com](mailto:eresources@igi-global.com).

# Chapter 19

## Unauthorized Comic Book Scanners

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### ABSTRACT

*This chapter uses theories of circulation, subculture, and materiality to discuss the activities of unauthorized comic book scanners or “pirates,” and the mechanisms by which they structure their community. The discussion is drawn from a body of quantitative data collected by observing the circulation of unauthorized comic scans through several BitTorrent Websites between 2005 and 2012. The authors also examine the public discourse of scanners themselves—showcased through various anonymous interviews—as part of an investigation into the scanners’ identification with a system of ethics that validates their dissemination of unauthorized content in the name of preservation or “digital archiving.” Lastly, the authors propose a methodology for the study of digital media as “space-biased” and circulatory rather than archival. Though comic book scanners may identify themselves as digital archivists, they are somewhat unreliable for actual preservation. However, the ongoing existence of their community, despite the illegal, anonymous, and ephemeral nature of their work, invites one to consider the merits of a knowledge propagation model based on dissemination over preservation.*

### INTRODUCTION

This chapter is part of a larger, ongoing body of research into the online activities of unauthorized digital comic book scanners, sometimes referred to as “comic book pirates.” In this collection, we focus

on the aspects of our research that deal explicitly with the constitution of online scanning communities themselves. We argue that these communities are “cultures of circulation,” whose entire reason for existence is the production and dissemination of a specific type of object: the digital comic book scan. The production, circulation, and reception of digital comic book scans brings into being not only the objects themselves, which are distinctly

DOI: 10.4018/978-1-4666-5206-4.ch019

different from print comic books, but also the larger communities, which are in effect, products of the circulatory trajectories through which the comic book scans pass. Moreover, subjects within these communities are also constituted by these circulatory practices, defining and redefining themselves in very specific and observable ways as a result of how they choose to participate within a given community's circulatory system. Studying the circulatory practices of these communities is the best way to gain insight into the roles that individuals play within it, and how they come to imagine themselves within their particular mores and ethics.

Our approach to niche online communities is informed by our conviction that the signature gesture of 21<sup>st</sup> century culture is circulatory rather than archival; the metaphors of archiving and curating are everywhere in contemporary culture, both within academic discourse and the popular press. Nevertheless, we contend that digital media is profoundly "space-biased" in the sense that Harold Innis (1986) uses the term: "it facilitates the rapid and promiscuous propagation of content across networks, usually in the interest of some form of organized force, but it's notoriously unreliable for actually *saving* anything" (p. 5). The notion of a "digital archive" may itself be an oxymoron, requiring us to consider the relative merits of a model of knowledge propagation based on dissemination (and the attendant risk of loss) rather than preservation; we are surrounded by people doing interesting things with space-biased media because they've figured out ways to flow with it rather than fight against it, and we want to know more about how that works. The study of comic book scanners is an initial foray in that larger project.

At first glance, comic book scanning communities appear to be subcultural in the sense that Dick Hebdige defined them in his classic work, *Subculture: the Meaning of Style* (1979). For Hebdige, subcultures are subordinate groups with their own expressive forms and rituals, whose significance

is always in dispute. Subcultures appear as the manifestation of a breakdown in societal consensus; from this perspective, comic book scanning is a closed community that remains largely hidden by virtue of its constitution around an infringing activity. However, following the critique of David Hesmondhalgh (2005), we have detailed at length elsewhere (Wershler, Sinervo, & Tien, 2013) the ways in which Hebdige's formulation of subculture and its various successors – Andy Bennett's notion of "neo-tribalism" and then Barry Shank's and Will Straw's respective descriptions of "scenes" – create more problems for us than they solve. Subculture implies something more rigid and permanent than our object; the notion of neo-tribalism was developed from qualitative data only, whereas we use both quantitative and qualitative materials; and scene has been used in too many different contexts to maintain the degree of theoretical nuance with which Straw in particular carefully invests it. Rather than offering a new master concept, Hesmondhalgh argues that what we need is a diverse set of tools that will allow us to examine the complex assemblages that this theoretical tradition addresses. For us, Straw's (2009) more recent work on circulation, following on that of Dilip Gaonkar and Elizabeth Povinelli (2003), is one such tool. Another complementary tool is the notion of format, particularly as Jonathan Sterne (2012) describes it in his work on MP3s. In combination with Straw's work on circulation, Sterne's notion of digital format as a hardened and therefore circulable set of material and social relations provides us with a way to describe the interrelated nature of objects, their circulation, and the social assemblages that the circulation generates. Where Hebdige (1979) argues that "objects are made to mean things" (p. 3) by subcultures, from our perspective, subjects, objects and the cultural assemblages through which they circulate are mutually constituted and continually transformed by circulatory processes.

## LITERATURE REVIEW

The fraught relationship between networked digital media and copyright law is a topic of general interest because it touches on the lives of many people. Headlines about peer-to-peer technologies and file storage sites appear every day in our newsfeeds, and many volumes of academic and popular criticism have been written on the subject, expressing a wide range of opinion. The combination of tangible and intangible forces that comprises a circulatory assemblage like comic scanning does have some similarities with other sorts of niche online communities. In the sense that Eric Raymond uses the term in *The Cathedral and the Bazaar* (2000), his classic manifesto for open-source Linux programming, comic book scanning is a “voluntary culture,” because the value that accrues is a result of participating in it is “egoboo”:

*The “utility function” Linux hackers are maximizing is not classically economic, but is the intangible of their own ego satisfaction and reputation among other hackers. (One may call their motivation “altruistic,” but this ignores the fact that altruism is itself a form of ego satisfaction for the altruist). Voluntary cultures that work this way are not actually uncommon; one other in which I have long participated is science fiction fandom, which unlike hackerdom has long explicitly recognized “egoboo” (ego-boosting, or the enhancement of one’s reputation among other fans) as the basic drive behind volunteer activity. (<http://www.catb.org/esr/writings/homesteading/cathedral-bazaar/ar01s11.html>)*

Just as Raymond described, the open source business model found ways to turn the desires and idiosyncratic interests of individual programmers into a force for the production of something greater, with little other than increased status within the subculture as compensation. Voluntary cultures aren’t entirely voluntary, though; the act of giving

someone something for nothing (even if it wasn’t yours to give in the first place) can create a sense of obligation in the recipient to respond in kind. In open-source programming, this obligation is codified in the principle of copyleft that drives various forms of public licensing (Wershler-Henry, 2002). In comic book scanning, there’s no formal mechanism to enforce the inclusion of those who receive scanned comics to create and circulate their own, but that doesn’t mean that the pressure to do so is any less real.

The substantial criminological literature on digital piracy – see especially Higgins, George, and Marcum (2011); Holsapple, Iyengar, Jin, and Rao (2008); Holt and Copes (2010); and Gunter and Whitney (2009) – isn’t particularly helpful for a number of reasons. First, it makes the immediate and unequivocal assumption that copyright infringement equals theft, which we see as a substantial rhetorical escalation. As Lessig (2004) has noted, copyright is still a property right. Unlike the case of manga scanlation, which involves a translation from one language to another (see below), it’s not feasible to make even a weak case for comic book scanning as a transformative use. However, peer-to-peer sharing of digital files is still not the equivalent of true piracy – i.e. taking someone else’s property and selling it – because “no one is selling the content that is shared on p2p services” (p. 8).

Further, the criminological literature on digital piracy tends to focus on the psychological makeup of the individual, the question of whether or not poor self-control is at the root of acts of copyright infringement, and strategies for deterrence rather than on the makeup or behaviours of groups (though Higgins, Wolfe and Ricketts (2009) argue that there are distinct classes of digital pirates). Much of the research into the use of peer-to-peer networking is based on studies of college students and is focused on discovering effective methods of combatting illegal activity (the possibility of distinguishing legitimate users or researchers from pirates does not seem to be a particular concern).

Studies that come from outside of the academy, such as Mateus's (2011) *Copyright Violation on the Internet: Extent and Approaches to Detection and Deterrence*, are often couched in the defensive and somewhat reactionary discourse of copyright protectionism. Another such project is *Shadow Market: 2011 Business Software Alliance Global Piracy Study*, conducted by the Business Software Alliance (2011). This study focuses on the habits of "self-reported pirates" – the subjects of anonymous surveys conducted by the BSA – of software with the aim of combatting and calculating the total commercial value of said piracy. Although the quantifiable results of these two business-aligned studies are useful, the aims of our research remains distinct from projects that are informed by a strong commercial interest. Before rushing to judgment, we want to trace the activities of a nearly untraceable community. The matter of intellectual property is important to our project insofar as we want to describe how comic book scanners engage with it themselves, mostly through the rhetoric they employ in the few pseudonymous and anonymous interviews that they've granted to bloggers over the years.

In any event, as opposed to the piracy of music or software, there is relatively little writing on unauthorized digital comic book scans and the communities that produce them. Apart from the initial findings of our own research on comic book scanning in *Amodern* (2013), Stevens and Bell's (2012) "Do Fans Own Digital Comic Books? Examining the Copyright and Intellectual Property Attitudes of Comic Book Fans" is the sole academic article we've been able to locate that broaches the subject of comic scanning directly. However, its emphasis is on reception rather than production and circulation. Beginning from a large collection of posts by comic book readers on Internet discussion forums, Stevens and Bell describe the various discourses of legitimation that readers employ to defend their use of copyright-infringing comic book scans. Although the positions of reader and scanner are frequently

interchangeable, Stevens and Bell's article has more to say about fan culture and its ambivalent relationship to intellectual property than it does about comic scanning communities themselves.

There is much more academic writing about scanlation than there is about the scanning of North American comic books – see Brienza (2009); Deppey (2005); Doria (2010); Edfeldt, Fjordevik, and Inose (2012); Hatcher (2005); Inose (2012); Leavitt (2010); Lee (2009); and Schodt (1996). "Scanlation" is the popular practice of fan-based translation and digital distribution of *manga* (Japanese comics) beyond the borders of Japan. Like the comic scanners in our study, scanlators usually organize themselves into groups that are international in their composition, though there are also independent scanners. The organization of these communities by division of labour is also similar to the way that comic scanning groups structure themselves (Lee, 2009).

The motives and ethics of scanlators differ in some important respect from those of the scanners of North American comics. Unlike scanlations, the vast majority of comic scans do not involve translation between languages. As a result, the rhetoric of providing access to something that would otherwise be unavailable is muted, though not entirely absent. Some comic scanners suggest that they do what they do in order to "preserve" comics, or to provide access to material that is out of print or unavailable for other reasons (such as being tied up in copyright disputes, like the Alan Moore et. al. version of *Marvelman/Miracleman*, and, until recently, Grant Morrison's *Flex Mentallo*). However, the relationship between Japanese fan cultures and the manga industry is arguably less antagonistic than that between comic book scanners and the mainstream comic book publishers. Some critics claim that the manga industry tolerates the activity of scanlators as participatory and fannish rather than seeing it as unilateral copyright infringement (Lee, 2009). Scanlation may even serve as a tool that helps the manga industry to open up new overseas markets by creating an



interest in a product that would otherwise be unavailable. There is, of course, a major difference between the practices of scanlators and scanners: the former often create transformative works in different languages, while the latter prioritize design reproduction.

One of the most-discussed recent projects about scanlation is Manovich, Douglass and William Huber's (2010) "Understanding Scanlation: How To Read One Million Fan-Translated Manga Pages." Though this project appears to deal with similar concerns to ours, there are significant differences in its object of study, its methodology, and its conclusions. The focus of Manovich, Douglass and Huber's research has to do with the visual form of manga rather than legal, ethical, or cultural questions. Using special digital image analysis software on supercomputers, Manovich's team set about extracting visual patterns from an enormous corpus of digital scanlations. Ultimately, this "big data" project is more concerned with functioning as a "test case" (p. 3) for "new possibilities for the study of media and visual cultures" (p. 2) via supercomputer-assisted quantitative research and large-scale visualization within the digital humanities than it is with conducting an investigation into the culture of scanlation.

Our ongoing research takes a complementary approach to the work of Stevens and Bell. While their methodology begins and ends with the stated opinions of comic book readers, ours begins with the public discourse of the scanners themselves, and checks the statements in this discourse against quantitative data we have collected from our observation of the circulation of unauthorized comic book scans through various BitTorrent tracker Websites, and a small number of miscellaneous online documents produced by and for members of the scanning community.

The bulk of the discourse about comic book scanning consists of a handful of interviews that various Web journalists and bloggers have conducted with pseudonymous comic book scanners over the last few years. In these interviews,

scanners begin to describe, however elusively, their specific motivations and practices. One of the most significant aspects of this discourse (and probably the most conspicuous to the readers of this chapter) is the particular usage of the words "piracy" and "pirate." As the titles of these interviews demonstrate, online journalists and their editors use the word "pirate" to describe comic book scanners – see various interviews conducted by Mroczkowski (2011) and Johnston (2012). The interviewees do refer to themselves as "pirates," but the term that they usually use for self-description is "scanners," a convention we follow here. In light of Johns's (2011) landmark work on piracy, we believe that it is important to recognize the rhetorical stakes behind the deployment of this epithet. (We have detailed our argument about this point in our article (2013) in *Amodern*. It's noteworthy that scanners also use the term "pirate" to describe the *readers* of the files that they produce (aka "leechers") (see especially Mroczkowski (2011, part I)). In other words, they also locate the act of piracy at the moment of reception, in the act of reading, rather than in the production of the scans. Within the logic of comic scanning groups, this makes sense because one of the largest and oldest of these groups (Digital Comics Preservation, or DCP) bases its name on the rhetoric of preservation.

In a similar vein, some scanners speak of themselves as digital archivists. This is especially true of those who focus on scanning older print comics that have yet to be released digitally, and whose distribution is comparatively limited, though almost always still within copyright (Mroczkowski, 2011, part I and II). Part of the reason for this claim is that compared to ripping CDs or movies, scanning a comic is a relatively laborious process that takes several hours and usually several people to complete (Mroczkowski, 2011). (Scanlating manga takes even longer because of the linguistic translation and typesetting involved.) These scanners take pride not only in the "mission" of their work, but also in the editorial quality of

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their scans. An anonymous retired scanner tells Jim Mroczkowski (2011) that while scanning, “I may not have cured cancer ... but I still had a sense of accomplishment when I was done. When I was done, I felt like I could then share this publishing ‘gem’ with others who would appreciate it.” Another former scanner writes that:

*Some groups will only scan and make available comics older than 2 years. All profess that it is done to protect the medium (comics degrade with age) and make comics available to people who wouldn't normally be able to read the comic (the speculation market increases the value of a comic and thereby making it too expensive for some readers to purchase and enjoy). (St. Claire, 2004)*

Considerable personal monetary expense increases the sense of investment that scanners have in the digital copies that they produce. The same anonymous pirate quoted above confesses to buying “toys that had a comic book bundled within just to own and scan the comic so that more people could share it and save it,” to mailing away “for variant covers and books no one had scanned before just to make sure they were preserved” and to buying “numerous books that I’ve never even read because I was committed to the idea of making sure they were saved” (Mroczkowski, 2011). Various studies have established that the heaviest peer-to-peer downloaders of music also buy the most music (as much as 30% more than non-P2P users) so this is a familiar pattern – See Aguiar (2013); Karaganis (2012); Karaganis and Renkema (2013). This sense that comic scanners have of themselves as enthusiasts who want to share their personal collections is a familiar element in the ideological makeup of various fan communities, and it drives much of the circulation of unauthorized digital copies.

Occasionally even comic book creators will recognize the activity of scanners as fannish (and therefore acceptable) rather than as infringement. In 2010, the comic artist Steve Lieber discovered

that his graphic novel *Underground* had been posted in its entirety on one of the “chans” (channels) of notorious Internet discussion forum 4chan. Lieber decided to investigate personally:

*I arrived up at /co/ and saw a long thread in which “Internet Man,” the guy who posted my book, had done so one page at a time. He had to hit “browse” and “upload” over a hundred times to post the book, and all throughout, he was talking about how great it was, nagging people to read it and discuss the story with him. That didn't feel like a pirate. That felt like a fan. And indeed, some people were starting to talk about it. So I did what I always do. I joined the conversation. (Masnick, 2010)*

Note that the method of circulation that the scanner chose to use had a major effect on how his act was perceived by the comic’s creator. The scan of *Underground* was not in a zipped, archived format (CBR or CBZ) designed as an alternative to print, nor was the file available on a BitTorrent tracker or file locker. The scanner had posted the images in a discussion forum, as something they wished to share with the other members of the chan, an act that involved a substantial amount of labour, which Lieber chose to interpret as a sign of fannish passion for his work. As a result of engaging directly with the scanner, Lieber actually turned the incident into an engine to sell more print copies of his work.

It’s also evident from the interviews that scanners who see themselves as digital archivists are careful to separate themselves from “zero-day” scanners, who strive to scan and release comics on the same day they are published; “As with software, a key to the prestige of the scene is the speed at which the pirated comic is made available” (St. Claire, 2004). This practice used to depend on scanners who worked in comic book retail and had access to titles before they were shelved, but the relatively recent shift to zero-day born-digital publication by mainstream American comics



publishers such as Marvel and DC has made it easier to recirculate brand-new titles. Though print scanning is still the preferred production method, some “scanners” are no longer scanning in any real sense, but are copying digital files from commercial services such as Marvel Unlimited, or even directly from within publishers’ intranets. This shift in material production was the cause of much ambivalence among preservationist scanners. The aforementioned retired scanner blamed his/her retirement on zero-day distribution, saying that scanning was now “all about getting YOUR copy out FIRST so that you could flood the fileshares before someone else could get their version out just to acquire digital kudos from those around you” (Mroczkowski, 2011).

Some scanners other than zero-day release specialists also reject the preservationist ethic, admitting that “stealing is stealing” (Mroczkowski, 2011), but continue to participate in the scanning community regardless. This contradictory ethos is evident in our data, which shows that DCP is committed in both name and practice to a preservationist ethic, as they scan many more pre-1980s print comics than zero-day releases. The other major release group, the Minutemen, whose name comes from a group of assassins in Brian Azzarello and Eduardo Risso’s *100 Bullets* (1999), seem to favour operating “up to the minute” (Mroczkowski, 2011), because most of their scans are zero-day releases.

Beyond the issues of preservation, quality, and copyright, the interviews also reveal a great deal of information about the social structure of comic book scanning. For instance, interviewees claim that there are at least three or four large scanning groups operating at a time. Though rivalries exist between them, many scanners end up working for more than one group over the course of their careers. Others scan independently (Mroczkowski, 2011). Membership in a group is by invitation only; usually a person has to be scanning independently in order to be noticed by a group and to receive an invitation to join. Groups often employ three

to six “super dedicated scanners and editors who cover the majority of their ‘0-Day’ releases” (Mroczkowski, 2011).

The scarcity of interviews and articles on comic book scanning made it necessary for us to do a substantial amount of fieldwork. As a result, we now have a fairly large corpus of raw data, consisting chiefly of the index files from “weekly scan” comic book packs. These packs are assembled from the work of members of the largest comic scanning release groups by third parties and uploaded to BitTorrent tracker sites across the Web. We have located indices for almost every week from 2005 to the present (earlier data exists, but is spotty). With an average of 60 or 70 comics per torrent, that gives us a database with about 25,000 records. The most recent version that we have of THE-LIST, the textfile that the scanning community maintains which contains the titles of all known scans, has around 28,000 lines in it. Many lines refer to multiple issues of each title, so our dataset is reasonable, but remains an approximation. As a result, we can check many of the scanners’ statements in interviews against the data we have compiled. This juxtaposition creates many points where we can see the activity of scanners as a group deviating from the explanations that various individuals have provided. For instance, if there are deeply ingrained rivalries between groups, as claimed in the interviews, how do we explain the frequent team-ups that occur between members of different groups? Despite such discrepancies, the interviews provide us with multiple reference points for an otherwise mysterious corner of the digital universe. Without them, our understanding of the structure of relationships between scanners, editors, teams, groups, and distributors would be much murkier. The public discourse of the scanners remains important to our project insofar as it reveals how a community talks about itself on one hand and allows us to test the theories we have developed from our data against something else on the other.

## ARCHIVES OR ANTI-ARCHIVES?

Early 21<sup>st</sup> century culture has a substantial discursive investment in the notion of archiving. Mike Featherstone (2000) notes that “the will to archive is a powerful impulse in contemporary culture” (p. 595); Beer and Burrows (2013) concur that much of contemporary culture is organized around the construction of digital archives:

*There is certainly a highly visible classificatory imagination at work in contemporary popular culture. We know little about how or why people engage in this – and yet, as we have already outlined, such practices are at the centre of the emergence of the new forms of archive we have identified. (p. 13)*

When dealing with networked online digital culture in general, and with the specific case of comic book scanning communities in particular, we would like to argue that it’s more useful to think in terms of “cultures of circulation” (Lee & LiPuma, 2002) rather than archiving.

In 2009, Diana Taylor coined the term “anti-archive” in order to argue that most of the digital repositories we refer to as “archives” are not archives. Despite some superficial resemblances, the deep structure of archives and ostensible digital archives are very different. The (usually corporate) owners of ostensible digital archives have no commitment to permanent preservation, and haven’t established the protocols for selection, storage, and documentation that make archives what they are. From a Foucauldian perspective, ostensible digital archives exhibit an entirely different configuration of power and knowledge than archives proper (Taylor, 2009). Michael Lynch (1999) describes this new configuration as an “archive cancer”:

*Archive cancer is a break-out of archival information from a contained, coherent and centrally administered corpus. There is no longer “a single corpus, in a system or a synchrony in which all the elements articulate the unity of an ideal configuration.” Archons multiply and occasionally squabble with one another, but they are also subject to ordering and redistribution. A “cancer culture” can emerge from the ruins of the “ideal configuration” of a coherent and unified corpus, as dissociated cellular elements are re-associated into linear distributions. (pp. 81-82)*

From such a perspective, comic book scanning would be a cancer culture. However, it’s not necessary to adopt the illness metaphor. The larger point is that digital media facilitates the rapid and promiscuous propagation of content across networks, but it’s notoriously unreliable for actually *saving* anything in the long term. Wendy Chun’s (2008) work on “the enduring ephemeral” concurs, reminding us that on a material basis, digital “memory” is not the same thing as storage, and is in fact predicated on erasure (p. 167). The notion of a “digital archive,” then, may itself be an oxymoron, requiring us to consider the relative merits of a model of knowledge propagation based on dissemination (and the attendant risk of loss) rather than preservation.

To the extent that scanned digital comics are “preserved” by groups like DCP, it’s an odd sort of preservation, perhaps best described as an archive-without-an-archive. The structure and function of peer-to-peer software like BitTorrent means that the objects that circulate within any given swarm are dispersed as a series of quantized packets; as long as all of the packets are at some point within the swarm, anyone can begin to download them, regardless of whether a given issue exists as a discrete file at the moment. However, as people connect and disconnect their computers, that

structure can fail at any moment. Moreover, there's no guarantee that a given swarm will continue to exist for more than a brief period of time, which means that the files that it contains may be visible within documents like indices on tracker sites, but may not be retrievable. Accordingly, we contend that the signature gesture of 21<sup>st</sup> century culture is "circulation" rather than archiving.

## **CULTURES OF CIRCULATION**

McLuhan and Nevitt (1972) pointed out decades ago that, after electrification, hard and fast distinctions between individual points in contemporary culture tend to blend into each other: "At electric speeds the consumer becomes producer as the public becomes participant role player. At the same time the old 'hardware' is etherealized by means of 'design' or 'software'" (p. 4). The implication is that in order to describe contemporary culture, we should be thinking on the level of diagrams, connections, networks, and assemblages rather than individual nodes. A networked digital culture amplifies this tendency, because the channels for the circulation of documents such as Usenet, IRC channels, DC++, BitTorrent trackers, Twitter feeds, blogs, and discussion forums are where online communities nominally exist.

According to Gaonkar and Povinelli (2003), it is within cultures of circulation that "texts, events, and practices become palpable and are recognized as such" (p. 386). Straw (2009) expands on this point, arguing that "the movement of cultural forms presumes and creates the matrices of interconnection which produce social texture" (p. 22). In other words, communities (online or otherwise) actually come into being because of the objects they circulate rather than pre-existing them. This is certainly true of comic book scanning communities, which exist solely for the purpose of circulating the objects of their passion.

The digital comic-scanning scene is a populist community that emerged long before the comics

publishing industry finally developed any coherent digital publishing strategies. In that historical sense, it was an indicator of an opportunity for a market where one didn't yet exist. The emergence of comic book scanning occurs around the same time as an interest among Internet early adopters in abandonware – video games and other software that was no longer maintained because its original manufacturers and copyright holders had either lost interest in it or lost track of it. Abandonware enthusiasts developed software packages like MAME (Multi Arcade Machine Emulator) to play older games on contemporary machines. While the emulation software itself was and is legal, the abandonware ROMs that they were written to display have the same clandestine status as scanned comics. Khong (2007) suggests that the interest in abandonware points to a missing market, because copyright does nothing to guarantee the availability of the texts that it covers for potential audiences. If the market were truly efficient, it would find a way to serve this need. So, in a very real sense, scanning and abandonware communities point to a commercial possibility that established business models were unable to recognize.

Why did comic book scanning communities first appear? Aside from the timeless attraction of belonging to an exclusive, secretive group or clan, comic book scanning communities have their relative beginnings around the turn of the millennium as an historically specific response to a number of factors. Cheap home flatbed colour scanning technology created new production opportunities (St. Claire, 2004). Around the same time, the combination of affordable home DSL lines and Internet protocols such as Usenet, the Web, DC++, and IRC furnished new distribution opportunities. One former self-identified comic pirate reports that ca. 2004, popular IRC channels would have over 5000 comic scanners and downloaders in them at once (St. Claire, 2004). In the same year, a DC++ hub called The Batcave had "people connected to it who have upwards of 400 GB (yes, GB) of comics. If we say it's an average

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of 10 MB per comic, that's the equivalent of over 40,000 comics in digital format" (St. Claire, 2004). The advent of BitTorrent (Jorgo, n.d.) enabled the sharing of relatively large files – not just single comics, but entire runs of some titles – between very large groups of anonymous peers. Add to that the consistent ability of fans to locate like-minded individuals, existing models – such as the abandonware community or warez boards – to emulate, and the growing alienation of comic-book buyers from industry pricing and distribution models for print comics that increasingly relied on devices such as variant covers, foil-stamping, holograms, and heat-sealed poly-bagging to justify increasing cover prices, and you have the particular combination of technological, economic, and social factors that led to the emergence of comic scanning.

One way to think of comic book scanning communities is as the true face of Toffler's (1980) "prosumers" – consumers who actively produce something as part of the act of consumption. In this sense, comic book scanning is a form of active readership, a way of interacting with a print text that enables others to see it as well. Toffler (1980) originally presented prosumption in terms of consumer empowerment, but it is arguably an even more efficient means of exploitation: "the only thing better than a low-paid worker is someone (the consumer as prosumer) who does the work for no pay at all" (Ritzer & Jurgenson, 2010, p. 26). Comic scanners are doing exactly what we've been told for the last thirty years that good consumers should do, that is, interact with consumer products, customize them to make them their own, add commentary, discuss their activities with other prosumers, and so on. The problem is that comic book scanners prosume outside of corporate firewalls in a manner that cannot itself be recaptured and commodified. From a corporate standpoint, the worst-case scenario of selling tools to people is the production of an entire population of technologically sophisticated producers capable of making objects whose contents are beyond their control.

Is comic book scanning a form of fair use or fair dealing? Collins (2010) notes that prosumers often perceive their actions as fair even when they infringe on the copyrights of others: "Broadly speaking, copyright owners seek to maintain control over information flows, whilst prosumers make (what they consider to be) fair uses of elements harvested from the media-saturated environment" (p. 38). Nevertheless, comic book scanning almost always falls outside of fair dealing and fair use because the use that scanners make of the comics is not transformative in the sense that it creates a unique new work. Further, the transformations that do occur – i.e. a transformation in medium from paper to digital that allows copies to circulate outside of commercial channels, and the frequent excision of advertising from the comic during the editing phase – remove the ability of the comics' copyright holders to profit directly from the digital copies. Though some software and music pirates have developed schemes to actually profit from their infringement we've yet to encounter anything that suggests that comic book scanners routinely profit from their actions – see Chapman (2005). Occasionally DVDs containing large archives of scanned comics will appear on eBay or other online auction houses, but are located and banned almost immediately by the site administrators. The scanners interested in turning a profit from their actions would have been more likely to open up accounts on file lockers like RapidShare, as Serj, the Admin of the once-thriving scanner group Z-Cult FM:

*These days most comics are pirated on DC++ or sites such as Rapidshare ... Live links are becoming the most popular because uploaders are being paid for the number of people who download their comics from Rapidshare etc, its a sad turn of events in the scene. (Enigmax, 2009)*

It is more accurate to describe the circulation of digital comic book scans as "transfigurative" in Gaonkar and Povinelli's (2003) sense than

as transformative in a legal sense. Circulation is transfigurative because it changes the object in circulation via various sorts of accretions and abrasions even as the circulating object affects the culture around it. The most obvious of these transfigurations is the one between media, where a given comic passes from print to digital form. This transfiguration affects that particular comic's availability, making titles that were rare and possibly out of print for decades suddenly obtainable, at least theoretically (as we've noted, the vagaries of peer-to-peer distribution often mean that retrieval of any specific comic can be difficult or impossible).

## **FORMAT AND CIRCULATION**

In addition to changes in medium, the process of circulation also produces transfigurations in format. As Sterne (2012) notes in his work on the MP3, digital file formats are “‘crystallized sets of social and material relations’ that work for and are worked on by various individuals, groups, ideologies, technologies and other social and material elements” (p. 826). We need to spend more time considering not only how and why particular codecs develop, are taken up, circulated, incorporated into various software packages, and eventually abandoned, but also how they manifest and reciprocally help to shape cultural values. Comic book scanners champion very specific, somewhat idiosyncratic file formats and protocols, and new software and new interfaces have been developed to capitalize on their adaptation of these formats and protocols to their particular ends. In other words, their aesthetics and ethics not only inform each other; they also affect the material choices that they make about their tools and methods, and all of these choices play out in their collective documents.

Comic book scanners have adopted and adapted two free, open-source file formats for their own purposes: CBR and CBZ. These files require no

specialized software to make; they are simply RAR and ZIP archives whose suffixes have been manually changed by typing to “CBR” and “CBZ,” respectively. (There are other comic book formats based on other compression codecs, but they're rare.) Therefore, any given comic book “scan” is actually an entire set of image scans, numbered sequentially, placed into a folder, run through archiving software and given a name to reflect the people who produced it and their group affiliations. On comic book message boards, there is a slight espoused preference for CBZ because the ZIP codec is in the public domain, and RAR (the Roshal Archive) is a proprietary format.

The scans inside comic book archives are often 150 dpi jpegs (a standard that seems to have been arrived at totally informally via communally shared knowledge on comic boards), but they can also contain images scanned at other resolutions (it's now common to find 400 dpi jpegs), or other formats such as gif, png, or even tiff. There are even competing metadata standards for comic book archives (CBML, CoMet, ABCF, and ComicBookInfo, to name a few), though we've never encountered them in the wild (the ComicRack reading application has its own internal metadata system as well). Blurred, skewed or otherwise inferior scans are often replaced and the file is “re-upped” by another scanner (some specialize in such forms of editing) under a similar name, but as a result, the comic book archive probably now has extra signatures or less editorial content.

Some scanners claim that “if more publishers would release comics in un-DRM'ed CBZ/CBR or EPub formats, scanning would all but cease” as files with some form of Digital Rights Management (DRM) are more difficult to view on multiple digital devices (Mroczkowski, 2011). Others argue that piracy will continue to be a condition of digital publishing, despite commercial advances in formatting: “This is something [the] entertainment industry would do well to pay attention to: you will never defeat piracy! ... there will always be a security issue as long as humans are



involved in the process at any point” (Johnston, 2012). But these standards have evolved over time not because they are superior in any objective sense, but because they reflect the values of the scanners that use them. From the point of the comic book scanners, the PDF, the usual choice for professional publishers circulating licensed discrete digital copies of their comics, is the file-format equivalent of bottled water: corporate, proprietary, and bloated with unnecessary features. Its larger file sizes increase download time and storage requirements; its ability to maintain layers and precise typography are unnecessary when dealing with comic book pages; and its security features are a nuisance rather than a boon. The following paragraph is an excerpt from the 2008 version of the alt.binaries.pictures.comics.dcp newsgroup FAQ:

*6. Do you guys make PDFs?*

*Ugh. F’ no. There are groups out there ripping off the comics that are scanned by your favorite DCP, OCD, HaCsA, RIP, etc scanners, and calling them their scans, repackaging them as PDF and sharing them via another distribution system. If you have any of these “scans” do yourself a favor and delete them and get the .cbr, .cbz, .zip, or .rar version, the way comics should be. Sharing PDF comics will get you ridiculed, ignored, etc... If you don’t like it, grow up and get over it. (Boyscout)*

Despite the similarities in the wrapper, various copies of the “same” digital file may be significantly different at the material level. If we’re really going to understand the social and cultural function of file sharing, we need to pay attention to the ways that circulation transfigures the material form of the files themselves.

The existence of the alt.binaries.pictures.comics.dcp newsgroup FAQ itself raises another important point. Over time, circulatory communities also produce documents that describe the

practices in the process of circulation itself. The circulation of such documents in turn helps to give shape to the community. A second example of such a document from the comic scanning community is THELIST. Referenced within several of the interviews with comic book scanners (Mroczkowski, 2011), THELIST is a communally produced and collaboratively maintained .txt file that supposedly enumerates all of the comic books that have ever been scanned. The point is supposed to be to eliminate the number of redundant scans in circulation. If they can locate it (a test in and of itself), new members of the community can download a copy of THELIST, select a personal project that concentrates on hitherto undigitized texts, update THELIST, and re-up it. The reality is that THELIST is a fairly difficult document to locate because of its generic name. The copy of THELIST that we located via BitTorrent begins with a Gmail address (THEListKeeper@gmail.com), suggesting that some individual or group took it upon themselves to try to maintain a definitive version, but there are surely multiple versions of THELIST in circulation as well, with different content depending on who updated them and when. Internally, THELIST is organized in alphabetical order, with numeric titles appearing before the A section. After each title, there is a numeric range indicating the issue numbers in the series that are known to have been scanned. In the case of series that have identical titles, their respective publishers or publication dates are sometimes included in parentheses. There is no information about who produced the scans of these titles, or when, or where copies might be located. As a result, the usefulness of THELIST is somewhat limited in a practical sense; its function is largely ideological. Its ongoing existence is the concrete version of a kind of collective imagining, a shared fantasy that the scanning community has some sort of collective direction, strives for efficiency and comprehensiveness, or, indeed, exists as a community at all.



## THE INTERNAL STRUCTURE OF CIRCULATORY COMMUNITIES

Circulatory patterns dictate the internal structure of the comic scanning community as well as its interactions with the larger Internet. The task of producing a digital comic “scan” is actually divided into three jobs: scanning, editing, and distribution. These jobs are always divided between at least two individuals (and often more): scanners and distributors. Until very recently, the production of digital comic scans began on the shelf of the comic shop or bookstore, or even in the offices of the comic publishing companies (St. Claire, 2004). Historically, scanners purchased or borrowed physical copies of the targeted comic, took them home and scanned them. They then emailed, FTPed, or otherwise circulated the “raws” (page scans) to an editor. The job of the editor is to perform a number of possible adjustments on the scans, such as straightening, removing noise, identifying blurry or otherwise imperfectly scanned pages, optimizing the colours to display on a computer monitor, compressing images, assigning a page number scheme, and creating a new .CBR or .CBZ archive file. At this point, when production ends and distribution begins, the trail becomes somewhat hazy.

The indistinctness of our understanding of the circulatory systems specific to scanned comics has to do with the preference of scanners for obscure, difficult to use and now-moribund Internet technologies like Usenet, IRC, and DC++. Even when they were new, the relative difficulty of using such protocols, compared to the Web or even BitTorrent, has always guaranteed them a significant degree of security. In addition to Usenet, one of the other major channels for the distribution of scanned comics is the combination of IRC (Internet Relay Chat) and DCC (Direct Client-to-Client, an IRC sub-protocol that makes it possible for people in the same chat channel to exchange files). IRC servers are vast; a given server can be running tens of thousands of channels, each of which may

have hundreds of thousands of people using it. Channels can be public or private; much of the initial circulation of scanned comics takes place in private channels. One former comic scanner states that running an IRC channel for scanned comics is one of the tasks assigned to entry-level group members:

*Part of how you rise in a piracy group is by first running a DCC server; as time passes, you make a name for yourself and you make friends with those higher up in the group. Then, once they feel they can trust you and feel you have something to offer, they open the door for rising up in the group – it’s the capitalist way. (St. Claire, 2004)*

Compared to systems like DC++ or BitTorrent, though, IRC distribution is very slow.

DC++, an open-source file client that operates in a manner similar to a closed FTP site, is, like IRC, difficult to set up and operate for those unfamiliar with command-line interfaces. However, it offers considerable rewards to the persistent because of its speed and capacity. DC++ comic distribution hubs are maintained jointly by “alliances” of comic scanning groups. Entry into them often requires users to upload quotas of scanned comics not yet on the hub, thus ensuring a steady circulation of new scanned material. Some DC++ have unlimited access, but they are invite-only. In 2004, St. Claire reported an alliance with five DC++ hubs, with escalating quotas of 1 GB, 5GB, and 20 GB worth of uploaded comic scans to participate; the remaining two hubs were invite-only. Such hubs likely still exist, but the bulk of the circulation of digital comics has been over the BitTorrent protocol due to its relative ease of use.

Though DC++ and BitTorrent are distinct protocols with their own software, and they operate in entirely different environments, the circulation of scanned comics created a bridge between them. Between 2004 and 2007, a scanner group called Z-Cult FM operated both one of the three aforementioned DC++ alliance hubs,

and an eponymous BitTorrent tracker site. Even in 2004, the tracker was showing over 16,000 registered users and around 700 active torrents (St. Claire, 2004). Just before a DMCA notice effectively shuttered the site in 2009, it had over 74,000 registered users, a number which does not include people directly or indirectly accessing the various torrents it had in circulation (Shelley, December 2007). Like many subcultures, and as its name suggests, Z-Cult placed a heavy emphasis on cultishness, as one former member recalls:

I didn't discover Z-Cult until just a few months before it's [*sic*] demise and even then I got the feeling that the long term members knew it would all come crashing down as if the genie had been let out of the bottle. In a way it had. You see, Z-Cult was a bit like Fight Club in that, it's first rule was to not spread the word or talk about Z-Cult out in the open, in places like public forums or large chat sites like Twitter or Facebook. (Shelley, December 2009)

Presumably, files flowed from the relatively closed DC++ site to the more public and accessible BitTorrent tracker. This form of circulation would require individuals with the time and expertise to migrate files from one environment to the other, which results in the production of an entirely new type of actor in this system: the distributor.

In the interviews with comic book scanners, the scanners note the presence of a separate distribution level occupied by the people that send the files out over BitTorrent: "the link [between] people and the torrentors ... their job is to get the book ... across the net" (Mroczkowski, 2011). Our research suggests that the job of distributing is done by actors who as far as we can tell, are not necessarily part of a scanning group and have nothing to do with either the scanning or editing process, unless they do so under a different alias. There are dozens rather than hundreds of them, and our research leads us to believe that distributors upload the same information to multiple sites every week, but that they may use multiple related aliases while doing so. For example, the uploader

Ace0801 on the BitTorrent tracker site 1337x.org may also be AceOfKnives0801 on Kickass Torrents and Joker0801 on The Pirate Bay. All three aliases are traceable to one Twitter account, which speaks in the first person singular while still maintaining the Twitter user's anonymity. There are many routes for comic scans to follow from the drives of the scanner or editor to the distributor; DC++ hubs and IRC are only two possibilities. But for years, distributors have released files in weekly batches to Torrent trackers such as The Pirate Bay, Kick-Ass Torrents, or Demonoid (all of which are now embattled, switching from service provider to service provider and domain to domain in an attempt to continue operating). Comic scans also make their way into various (also embattled) online file lockers, such as MegaUpload, MediaFire, RapidShare, FilesTube, and are then listed on various comic blogs. It's unclear whether this second-stage circulation is performed by the same distributors who Torrent the files, but given the haphazard nature of file locker collections, it's more likely that they are re-upped by users who have downloaded the Torrents and then placed them in their own private online spaces. After the MegaUpload raid, the surviving file locker sites almost universally reset their .txt files to prevent the handful of specialized search engines that were pointed at them from indexing their contents (WikiNoticia), so it has become next to impossible to investigate this question further in any concerted fashion.

Distributors create a noticeable bottleneck in the circulatory system – a narrow but highly active channel between scanners and readers. It might even be more accurate to describe them as constituting another circulatory network that interfaces with the various scanner and release group networks (all placing files on IRC, Usenet, or DC++) and various networks of readers. When they're active, distributors have no option but to be prolific and highly organized. If the activity of one distributor ceases, another jumps in to keep the files flowing. From January to July of 2010,

for example, the distributor espurious handled the bulk of DCP's uploads. In late September, BFTB became the distributor, and then AceOfKnives/Joker0801/Ace0801 continued until the end of the year (with the exception of one week handled by ACBG).

We should note here that we cannot tell how much communication occurs between uploaders, or between uploaders and scanner groups. The existing interviews are vague on this topic. Moreover, it would be very difficult, if not impossible, to perform comparative analyses between BitTorrent tracker sites. Jim Shelley tried to do just this in December 2009, and discovered that the sites drastically underreport the number of users connected to them:

*As I started drilling down on the various sites in the Torrent Aggregate site, I was surprised to discover that site does not accurately report the number of seeders and leechers from the sites it aggregates. Many of them had a lot more seeders/leechers than the aggregate site was reporting. I found one of the child sites that as of 10 pm last night had over 1000 current leechers on a DCP torrent from last week!*

Moreover, a packet may be uploaded to one tracker site by one distributor, downloaded by someone else entirely, and then re-uploaded to a totally different tracker site. Each upload creates new seeding and leeching swarms and a subsequently untraceable network of distribution. Today, the circulation of weekly packets on the Internet is extremely difficult to trace because the sites themselves continually change IP addresses and hosts. More and more of them are vanishing completely.

To return to the subject of the scanners themselves, the organization and stratification of groups of comic scanners is provisional at best. Most comic book scanners identify themselves to their peers and readers through the use of an alias that indicates their affiliation with a given release

group. In the signature pages that scanners append to their scanned comics, these aliases are almost always presented with the logos and images of a specific release group. The names themselves can also reflect group allegiance; most of the original Minutemen members, for example, drew their aliases from the names of Azzarello's (1999) characters in *100 Bullets*. But the identities and allegiances that scanners form within groups are fluid and subject to transformation. From month to month, it is not uncommon to see a scanner's alias appear in relation to more than one group or for the alias to slowly shift and change over time.

There are many groups operating in English-language comic scanning, with varying degrees of recognizability. The two largest and most stable groups by far have been DCP and Minutemen. DCP is the oldest group in operation, and was for many years the source of the majority of online comic scans (Shelley, October 2007); its members' work can be traced back to around the turn of the millennium, when the idea of transfiguring the content of comic books digitally for online distribution was yet to be imagined by publishers of mainstream North American comics. The existence of the alt.binaries.pictures.comics.dcp Usenet newsgroup dates from a time when the Web itself was still in its infancy, and home broadband connections were relatively rare. Comic book files were prohibitively large for most home users to receive over http, but obtaining them as binary-encoded Usenet messages was much less painful. Today, when most ISPs no longer carry any Usenet newsgroups, let alone the contentious alt.binaries groups, alt.binaries.pictures.comics.dcp still continues to distribute comic scans. In 2004, former comic scanner Jason St. Claire described the Usenet scanning scene as follows:

*Although at times fast for downloading, newsgroups are inconvenient for acquiring pirated comics if you don't have a sufficiently sophisticated program, which will automatically group and convert these messages into files and store them*

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*on your hard-drive. As well, it is problematic and aggravating, if you miss a file (for any number of reasons, including times when there's a flood of comic issues and you're trying to get all of them) or have a bad newsgroup provider, resulting in parts of the message to be missing, and therefore an unsuccessful download. Once a comic has been posted, chances are, if you miss it, it won't be posted again or not for quite awhile. Nothing like getting every issue of a series except #7. As well, you can make requests for a certain comic to be made available, but that doesn't mean it ever will be. Newsgroups, in my opinion, are an outdated distribution system.*

By 2009, people were reposting comic book scans from DCP in other Usenet groups as well, such as a[lt].b[inary].boneless group (Shelley, December 2007). Although in 2013, the comic book binaries newsgroups still have a significant amount of traffic. The residual quality of Usenet acts as a form of protection from scrutiny, which probably ensures the ongoing usefulness of it to the scanners. Most contemporary Internet users have no idea that Usenet still exists let alone how to access it or piece together and view a binary file.

Minutemen made their first mass post inside DCP's Usenet group in early December 2007, causing "a sh!tstorm of controversy" and speculation that they were making moves to become the top scanning group after various DCP members had run afoul of the DMCA (Shelley, December 2007). In our data corpus, the first traces of their operation appear in early 2006 under the group name MMS (presumably "Minutemen Scans"), though in the beginning they were not nearly as formal or as large a community as DCP. The earliest Torrent file packets in our sample tend to be labeled by the distributor as "DCP & Friends." Several of these "DCP & Friends" files were attributed to Minutemen, but there were typically only one or two Minutemen releases, compared to several dozen DCP releases and a few releases by unaffiliated scanners. However, this is exactly how a

comic scanning group forms: by pulling together independent scanners with talent under one rubric for aesthetic practice and one directive for who scans which comics. We know this by examining the interviews with comic scanners, which suggest that a scanner will work unaffiliated at first, and then eventually enter into conversation with members of an existing group. Such conversation frequently leads to recruitment, division of labour to optimize the group's coverage, and agreements about formatting and style (Johnston, 2012). Our research supports this sequence: it is normal for a scanner's name to appear without the tag indicating group affiliation for a few months; then, suddenly, the name will start appearing followed by a bracketed "(DCP)" or "(MM)." Among the many smaller groups in operation (CPS, OCD, CRG, etc. – Jorgo, n.d.), the most prominent is CPS. Presumably, CPS operates as a kind of farm team, because its members frequently migrate to DCP or Minutemen over time.

The members of DCP and Minutemen have performed the bulk of the comic scanning activity between 2005 and the time of this writing (2013). Within this range, the peak year for overall scanning activity is 2010. In the years from 2010 to the present, there have been fewer files in circulation overall. By the end of 2012, the activity of Minutemen tapered off almost altogether in the weekly release packs. This decline in productivity may have something to do with the increasing legal scrutiny that has been focused on Torrent tracker sites and home file-sharers alike over the past few years. This has been the case in the past when, during the first week of November 2011, Ouroboros, a then-active member of the DCP, was served with an email requiring that he cease and desist his activities. At the time, "This resulted in quite a number of back and forth posts in alt.binaries.comics.dcp devoted to how the newsgroup, and all downloadable comics in general, would soon be disappearing," but that didn't actually come to pass (Shelley, November 2007). However, it also may be a function of the adoption of official

digital distribution methods in English-language comics. DCP traditionally focused its organized efforts on scanning archival and lesser known out-of-print comics as well as new material, though not exclusively so. One long-time scene observer wrote in 2007 that “to many, DCP are the \*go-to\* guys for weekly 0-day scans” (Shelley, October 2007). Minutemen, conversely, tended in the vast majority of cases to scan contemporary comics and zero-day releases, with publication dates from either the current year or even the week previous to the date of the comic pack’s upload to a Torrent tracker. So when major publishers like Marvel and DC adopted day-and-date digital distribution practices (meaning that the same day a comic is offered in print, it is also available online for download), a scanning group like Minutemen might see itself as redundant.

As mentioned, 2010 represents the peak year for North American comic scanning to date. For this reason, we have chosen to use it as the focus for the preliminary findings for this project. The results of our data provide a certain amount of concreteness to the conjectures we make concerning the content of the interviews, and work to frame our investigation within some larger themes. In spite of this, many of our observations and analyses of this community are necessarily speculative. Because the work of comic scanning groups infringes on copyright, it takes place primarily in private online interactions. It is therefore impossible for us to discuss the organization and stratification within these groups with full certainty.

One thing we can infer from our research is that group membership is not the only fluid dimension of comic book scanning communities. In addition to shifts in their roles as editors or scanners, the identity of the comic scanners themselves shifts from week to week and release to release. All comic book scanners operate using aliases, and these aliases frequently change by degrees. For example, we suspect that DCP scanner “Beecherry” frequently goes by the shorter alias “Bchry,” and the scanner (or scanners) known as “Team” has

also appeared as “TSTeam,” “Team Second Class Citizens,” “SCC,” and perhaps even “Steam.”

These changes are minor compared to the alias permutations that can occur when more than one scanner is involved in the production of a single release. These are sometimes referred to as “Team-ups” (Mroczkowski, 2011), in an explicit reference to the language that superhero comics use to describe issues that describe temporary alliances between two or more heroes and/or villains. Usually, when more than one scanner has worked on the same file, all the scanners’ names are visible in the file name, with appends for their group name following (if applicable). For example, a typical file is named as follows: “Agents of Atlas 03 (2009) (Archangel & Bertha - DCP).” For the purposes of organizing our results, our practice when encountering several names on one file has been to treat the first name as the primary scanner, and additional names as secondary or tertiary. We speculate that while two or more scanners can share the task of editing equally, it makes financial sense that only one primary actor would actually do the scanning. To purchase two copies of the same comic would seem a waste of resources, and no evidence exists that members of this online community ever collaborate *away from keyboard*. In any event, while it is common for the scanners to have their names distinct from one another, nearly as often the scanners will create one unique portmanteau alias.

Portmanteau aliases are similar to those that the tabloid press uses to describe celebrity couples (Brad Pitt + Angelia Jolie = “Brangelina”) because they conflate the names of the various scanners involved. So when scanners “Link” and “SpiritualBeggar” cooperate on the production of a comic book scan, they operate under the alias “LinktheBeggar,” or when Minutemen members “Megan” and “Anubis” collaborate, they use the portmanteau alias “Meganubis.” Some scanners team up so frequently that it is hard to tell where one appellation ends and another begins. Consider, for instance, confusion that results from a string



of aliases like “DangerZone,” “Darth&Danger,” “DarthAnubis,” “DarthDMT,” “DarthTremens,” “DeliriousMom,” “DeliriousMotherScanner,” “DeliriousTyler,” “DTS’db,” “DTsXx,” “XXX-Toons,” and “XxxXScanner” (in the interest of saving space, we’ve provided only a brief example). Is “Darth” an individual or a title or both? Are the “DTs” a group or one person? Is “DTs” another alias for “Darth Tremens”? Are “XXX” and “XxxX” the same person or people? Are “DeliriousMom” and “DeleriousMotherScanner” the same person? Is “DeliriousMotherScanner” one person, two people, or three? Naming practices like these make it nigh impossible to truly account for all the scanners operating, and when an individual goes from active to inactive or back again.

These convoluted naming practices also make it difficult to identify and evaluate conflicts within the communities. In all the extant interviews with comic book scanners, the interviewees mention competition or conflict resulting from egotism at some point. For instance, in “Another Comic Pirate Writes,” pirate CCA\_Scanner mentions “a few [scanners] with GOD complex egos” that quickly soured his or her experience (Johnston, 2012). In “The Comic Book Pirate Interviews, Part I” (Mroczkowski, 2011), an anonymous former scanner tells the interviewer:

*Now, it seems like it’s more of a virtual pissing contest to see who can get out as many books as possible as quickly as possible. The groups often hurl insults and try to sabotage other groups. Most groups have 3-6 super dedicated scanners and editors who cover the majority of their “0-Day” releases, while various others drift in and out working on the periphery or on back issues. There’s a lot of ego involved in the “Scene” and new scanners often get chewed up and spit out.*

In a subsequent interview, freelance scanner Scanbug mentions a great deal of “office politics” and “highschool drama” in the larger groups, and

cites it as the reason for his retirement from the scene (Mroczkowski, 2011). Commentaries like these seem to indicate that if comic book scanning can be a community of collaborators, it can also be hierarchical and competitive. The evidence is strongest in these interviews, though traces of egoboo and competitiveness occasionally appear in the releases themselves in the form of self-promotional textual material about the scanning group (either on the signature pages appended to the back of the comic or occasionally Photo-shopped onto the book’s cover).

As difficult as it is to qualify the motivations behind comic book scanner activity, our data sample does allow us to quantify what the various groups tend to produce. Since the beginning of our sample, an amazing number of comics have been scanned by DCP and Minutemen. In 2010 alone, the two groups produced a total of over 10,000 scans, 5306 by DCP members and 5235 by Minutemen. This was no small task, considering the fact that this work was done, without remuneration, by around 520 individuals (the number of unique scanner aliases active in the year), and probably actually as few as around 360 (taking into account portmanteau names created by team-ups and what we could think of as “corporate” identities). In a 2012 interview, former DCP scanner Archangel estimated there were “well over 100” individuals scanning. When asked how many were uploading, Archangel responded, “Who knows?” (Johnston, 2012). These educated guesses aside, we can safely assume that group membership demands a prolific level of output.

In addition to the aliases attached to the file names, comic book scanners and their allegiances are often also identifiable by the additional material they append to their scans. This is one of the ways in which the practice of digital comic book scanning transfigures the content of the comic (as opposed to its medium or format) without constituting something that would be considered transformative for the purposes of fair use or fair dealing. The term “tag” refers to the signatures



that scanners attach to their productions (Jorgo, n.d.), because of their similarities to graffiti tags in structure and function. (We plan to devote an entire subsequent paper to the subject of these tags.) In comic book scans, tags are rarely simple affairs. Usually, they consist of an extra page appended to the end of the scanned comic, where the scanner has edited together images from several different cultural wells to create a unique signature image. The sources for this imagery can be other comics, photographs, screen captures from films or television shows, or original artwork created by the scanner. In most cases, the scanner's alias figures prominently in the image, and the insignia of the associated group is present as well.

Not all scanner tags are sensational. Many attempt to blend in with the rest of the comic. For example, a scanner may forego the extra splash page addendum in favour of subtly superimposing his or her alias over the numbers below the bar code on the front cover. Alternatively, a scanner may embed their alias within the publication information on the first page of the story, a gesture which can be read as a critique of the product as a commodity. Even more interestingly, the scanner will sometimes embed the tag right above or below the names of the comic's creators, formally and aesthetically challenging the authorship of the title through this juxtaposition. Although these types of tags seem to indicate a disrespect for comic book creators and publishers, other types of additional material suggest just the opposite – that scanners see themselves as true comic lovers, “die-hard fanatics” (Johnston, 2012) who are part of a greater community of like-minded people. For example, when a well-known comic book artist (or even a well-known comic book scanner) passes away, some scanned comics will include “In Memoriam” pages.

More frequently, tag pages will contain a message to readers urging them to go out and purchase the print copy of the book if they've enjoyed reading it digitally. Paradoxically, these pages implore downloaders of the comic to support the industry and their local comic book store,

even while violating the property rights of both and removing the need to go out and purchase anything. In interviews, scanners frequently discuss their roles as promoters of the industry and guerilla marketers for independent creators and new series:

*Q: Are there any books that you believe succeeded because they were pirated?*

*A: Without a doubt I do. I think its mainly been the smaller publishers that have benefitted ... I think Jonathan Hickman benefitted from it with The Nightly News. Four issues of that had been out before it was ever scanned. That was the first book I ever scanned, by the way. It was buried in the shop I bought it from. I asked them if they had read it and they said they hadn't. So I bought it, read it and was blown away by it. I am in no way claiming credit for its popularity but I think I helped get it noticed. Maybe that's an illusion or just a rationalization for scanning it.... And now, certainly, Diamond has made it more difficult for the smaller publishers. So I think they still benefit. I could go on listing books I think have been helped because I think there have been a lot. (Johnston, 2012)*

Slavoj Žižek (1989) argues in *The Sublime Object of Ideology* that such sentiments are the epitome of postmodern ideology, summing them up with the phrase: “They know very well what they are doing, yet they are still doing it” (p. 19). Regardless of whether or not it is actually true that comic book scanners help the comic book industry rather than hurt it, it is clear that within the community, scanners see themselves and their networks as an integral element of comic book culture. While acknowledging the possibility that this promotional reasoning may be an illusion of rationalization to justify what they do – ambivalence about their own complicity in possibly damaging that industry – many comic scanners obviously perceive themselves as caring individuals and fans.

## REFLECTIONS AND CONCLUSION

The ephemerality of the community we have been discussing poses serious problems for academic study. In addition to the fragility of space-biased media in general and digital media in particular, we are dealing with the traces left by people who are decidedly uninterested in having their activities studied. Moreover, our research is occurring at a moment when both the practices of the legitimate comic book publishing industry and the practices of the scanners themselves are in flux. Changes to international copyright regimes complicate the situation further. A variety of BitTorrent trackers and file locker sites that have been relatively stable for years have received DMCA cease-and-desist notices over the course of the time that we have been conducting our research. As a result, the URLs to which we have been referring, and the data that they have contained, have begun to disappear.

This is one reason that we believe that this sort of research is crucial: it can tell us things about the actual practices of individual people that are very different from what the media industries and their watchdogs tell us. One of the first rules of conducting research on contemporary digital online communities is, save everything, because by the time you are publishing your work, you may be the only one with a copy of the things that your writing describes. Working under such conditions reinforces our conviction that the underutilized concept of circulation is more valuable than the notion of archiving for conducting research on digital media in general and on online communities in particular. Of course, the decision to focus our analysis on circulation and file formats creates a very specific context for the description of our results. Future research into comic scanning will learn different things by focusing on different issues. We also hope that future analyses of other niche online communities might find a circulatory approach to be useful. There is already a substantial body of theory on circulation, but it

can be expanded and interrogated by particular case studies such as this one.

As for the comic book scanning communities themselves, they are in the process of transmuting into something else, due to growing legal pressures on P2P technologies on the one hand and the increasing prevalence of all-digital workflow in the comic publishing industry on the other. The handicraft, artifactual process of comic book scanning will probably be relegated to the few scanners dedicated to the remaining print titles that have never been circulated digitally. A portion of the scanning community will resort to emerging digital workflows, taking screen grabs of digital comics from computers and tablets or simply stealing files off of corporate FTP sites to which they have gained access surreptitiously. Such “scanners” will become functionally indistinguishable from other sorts of software pirates, because the content of the material they handle will be less and less of a factor in determining their actions. As a result, the scanning communities themselves will begin to transfigure along with the files that they handle. Studying what replaces them will require us to reinvent once more our theories, methods, and reading practices, providing the potential to engage an entirely new generation of scholars for decades to come.

## REFERENCES

- Aguiar, L., & Martens, B. (2013). Digital music consumption on the internet: Evidence from clickstream data. *Institute for Prospective Technological Studies Digital Economy Working Paper 2013/04*. Retrieved from <http://www.scribd.com/doc/131005609/JRC79605>
- Beer, D., & Burrows, R. (2013). Culture, digital archives and the new social life of data. *Theory, Culture & Society*, 30(4), 47–71. doi:10.1177/0263276413476542

- Boyscout <boyscout@forhire.de>. (2008, June 11). alt.binaries.comics.dcp F.A.Q.0002 alpha. *Usenet Replayer's FAQ Collection*. Retrieved from <http://www.usenet-replayer.com/faq/alt.binaries.comics.dcp.html>
- Brienza, C. (2009). Paratexts in translation: Re-interpreting 'manga' for the United States. *The International Journal of the Book*, 6(2).
- Business Software Alliance. (2012). *Shadow market: 2011 BSA global software piracy study* (9<sup>th</sup> ed.). Retrieved from <http://www.bsa.org>
- Chapman, S. (2011). Make money online by selling pirated content? These sites do. *ZDNet. SEO Whistleblower*. Retrieved from <http://www.zdnet.com/blog/seo/make-money-online-by-selling-pirated-content-these-sites-do/3660>
- Chun, W., & Kyong, H. (2008). The enduring ephemeral, or the future is a memory. *Critical Inquiry*, 35(1), 148–171. doi:10.1086/595632
- Collins, S. (2010). Digital fair: Prosumption and the fair use defense. *Journal of Consumer Culture*, 10(1), 37–55. doi:10.1177/1469540509354014
- Deppey, D. (2005). Scanlation nation: Amateur manga translators tell their stories. *The Comics Journal*, 269, 33–36.
- Doria, S. (gum). (2010). *Inside scanlation*. Retrieved from <http://insidescanlation.com>
- Douglass, J., Huber, W., & Manovich, L. (2010). *Understanding scanlation: How to read one million fan-translated manga pages*. Retrieved from <http://lab.softwarestudies.com/2010/11/one-million-manga-pages.html>
- Edfeldt, C., Fjordevik, A., & Inoise, H. (2012). Fan culture as an informal learning environment. In *Proceedings of NGL 2012: Next Generation Learning Conference*. Dalarna University. Retrieved from <http://lnu.diva-portal.org/smash/get/diva2:543542/FULLTEXT01#page=109>
- Enigmax. (2009). *Z-cult FM comic BitTorrent tracker turns the final page*. Retrieved from <http://torrentfreak.com/z-cult-fm-comic-bittorrent-tracker-turns-the-final-page-090607/>
- Ernesto [Lennart Renkema]. (2013). Online music piracy doesn't hurt sales, European commission finds. *TorrentFreak*. Retrieved from <http://torrentfreak.com/online-piracy-is-not-hurting-music-revenues-european-commission-finds-130318/>
- Feathersone, M. (2006). Archive. *Theory, Culture & Society*, 23(2-3), 591. doi:10.1177/0263276406023002106
- Featherstone, M. (2000). Archiving cultures. *The British Journal of Sociology*, 51(1), 161–184. doi:10.1080/000713100358480
- Gaonkar, D. P., & Povinelli, E. A. (2003). Technologies of public forms: Circulation, transfiguration, recognition. *Public Culture*, 15(3), 385–397. doi:10.1215/08992363-15-3-385
- Gunter, W. D. (2009). Internet scallywags: A comparative analysis of multiple forms and measurements of digital piracy. *Western Criminology Review*, 10(1), 15–28.
- Hatcher, J. S. (2005). Of Otaku and fansubs: Appendix: Fansub samples. *Script-ed*, 2(4).
- Hebdige, D. (1979). *Subculture, the meaning of style*. London: Routledge. doi:10.4324/9780203139943
- Hesmondhalgh, D. (2005). Subcultures, scenes or tribes? None of the above. *Journal of Youth Studies*, 8(1), 21–40. doi:10.1080/13676260500063652
- Higgins, G. E., Wolfe, S. E., & Ricketts, M. L. (2009). Digital piracy: A latent class analysis. *Social Science Computer Review*, 27(1), 24–40. doi:10.1177/0894439308321350
- Holsapple, C. W., Iyengar, D., Jin, H., & Rao, S. (2008). Parameters for software piracy research. *The Information Society*, 24(4), 199–218. doi:10.1080/01972240802189468

- Holt, T. J., & Copes, H. (2010). Transferring sub-cultural knowledge online: Practices and beliefs of persistent digital pirates. *Deviant Behavior*, *31*(7), 625–654. doi:10.1080/01639620903231548
- Innis, H. A. (1986). *Empire & communications*. Toronto, Canada: Press Porcépic.
- Inose, H. (2012). Scanlation – What fan translators of manga learn in the informal learning environment. In *Proceedings from ISLC 2012: International Symposium on Language and Communication: Research Trends and Challenges*. Dalarna University. Retrieved from <http://du.diva-portal.org/smash/get/diva2:549925/FULLTEXT01>
- Johnston, R. (2012a). Another comic book pirate writes. *Bleeding Cool*. Retrieved from <http://www.bleedingcool.com/2012/04/16/anothr-comic-book-pirate-writes-2/>
- Johnston, R. (2012b). An interview with a comic book pirate. *Bleeding Cool*. Retrieved from <http://www.bleedingcool.com/2012/04/12/pirate/>
- Jorgo. (n.d.). *Digital comics introduction*. Retrieved from <http://www.jorgo.org/comics-38/digital-comics-introducti-100/>
- Karaganis, J. (2012). Where do music collections come from? *The American Assembly*. Retrieved from <http://piracy.americanassembly.org/where-do-music-collections-come-from/>
- Karaganis, J., & Renkema, L. (2013). Copy culture in the US & Germany. *The American Assembly*. New York: Columbia University. Retrieved from <http://piracy.americanassembly.org/wp-content/uploads/2013/01/Copy-Culture.pdf>
- Khong, D. W. (2007). Orphan works, abandonware and the missing market for copyrighted goods. *International Journal of Law and Information Technology*, *15*(1), 54–89. doi:10.1093/ijlit/eai032
- Leavitt, A. (2010). Inside scanlation (website review). *Transformative Works and Cultures*, *5*. doi: doi:10.3983/twc.2010.0215
- Lee, B., & LiPuma, E. (2002). Cultures of circulation: The imaginations of modernity. *Public Culture*, *14*(1), 191–213. doi:10.1215/08992363-14-1-191
- Lee, H.-K. (2009). Between fan culture and copyright infringement: Manga scanlation. *Media Culture & Society*, *31*(6), 1011–1022. doi:10.1177/0163443709344251
- Lessig, L. (2004). *Free culture: How big media uses technology and the law to lock down culture and control creativity*. Retrieved from <http://www.authorama.com/free-culture-8.html>
- Lynch, M. (1999). Archives information: Privileged spaces, popular archives and paper trails. *History of the Human Sciences*, *12*(2), 65. doi:10.1177/09526959922120252
- Masnick, M. (2010). Interview with the guy who embraced the ‘Pirates’ of 4chan. *TechDirt*. Retrieved from <http://www.techdirt.com/blog/casestudies/articles/20101026/00183011584/interview-with-the-guy-who-embraced-the-pirates-of-4chan.shtml>
- Mateus, A. M. (2011). *Copyright violation on the internet: Extent and approaches to detection and deterrence*. (Unpublished Doctoral Dissertation). Retrieved from Carnegie Mellon University dissertation database. (Paper 50)
- McLuhan, M., & Nevitt, B. (1972). *Take today: The executive as dropout*. New York: Harcourt Brace Jovanovich.
- Mroczkowski, J. (2011a). The comic book pirate interviews, part 1. *iFanboy*. Retrieved from <http://ifanboy.com/articles/the-pirate-interviews-part-i/>
- Mroczkowski, J. (2011b). The comic book pirate interviews, part 2. *iFanboy*. Retrieved from <http://ifanboy.com/articles/the-comic-book-pirate-interviews-part-ii/>



- Mroczkowski, J. (2011c). The comic book pirate interviews, part 3. *iFanboy*. Retrieved from <http://ifanboy.com/articles/the-comic-book-pirate-interviews-part-iii/>
- Mroczkowski, J. (2011d). Ahoy, comic book pirate! *iFanboy*. Retrieved from <http://ifanboy.com/articles/ahoy-pirate/>
- Raymond, E. S. (2000). The social context of open-source software. *The Cathedral and the Bazaar*. Retrieved from <http://www.catb.org/esr/writings/homesteading/cathedral-bazaar/ar01s11.html>
- Ritzer, G., & Jurgenson, N. (2010). Production, consumption, prosumption: The nature of capitalism in the age of the digital prosumer. *Journal of Consumer Culture*, 10(1), 13–36. doi:10.1177/1469540509354673
- Schodt, F. (1996). *Dreamland Japan: Writings on modern manga*. Berkeley, CA: Stone Bridge Press.
- Shelley, J. (2007a). What is: alt.binaries.comics.dcp? *Flashback Universe Blog*. Retrieved from <http://flashbackuniverse.blogspot.ca/2007/10/what-is-altbinariescomicsdcp.html>
- Shelley, J. (2007b). RIP for the DCP? *Flashback Universe Blog*. Retrieved from <http://flashbackuniverse.blogspot.ca/2007/11/rip-for-dcp.html>
- Shelley, J. (2007c). Two for one Monday: New guys in a.b.dcp? *Flashback Universe Blog*. Retrieved from <http://flashbackuniverse.blogspot.ca/2007/12/two-for-one-monday-new-guys-in-abdcp.html>
- Shelley, J. (2007d). Zcult AfterMath screenshots. *Flashback Universe Blog*. Retrieved from <http://flashbackuniverse.blogspot.ca/2007/12/zcult-aftermath-screenshots.html>
- Shelley, J. (2009a). Is illegal comic downloading passe? *Flashback Universe Blog*. Retrieved from <http://flashbackuniverse.blogspot.ca/2009/09/is-illegal-comic-downloading-passe.html>
- Shelley, J. (2009b). The decade comics went digital - Part 2. *Flashback Universe Blog*. Retrieved from <http://flashbackuniverse.blogspot.ca/2009/12/decade-comics-went-digital-part-2.html>
- St. Claire, J. (2004). Free comic book day 24/7/365: The scurvy dogs of comic book piracy. *Comic Book Galaxy*. Retrieved from [http://www.comicbookgalaxy.com/commentary\\_piracy\\_111504.html](http://www.comicbookgalaxy.com/commentary_piracy_111504.html)
- Steadman, I. (2012). Another study finds music piracy ‘does not displace digital sales’. *Wired.co.UK*. Retrieved from <http://www.wired.co.uk/news/archive/2013-03/21/music-piracy-doesnt-hurt-sales>
- Sterne, J. (2012). *MP3: The meaning of a format*. Durham, NC: Duke University Press. doi:10.1215/9780822395522
- Stevens, J. R., & Bell, C. E. (2012). Do fans own digital comic books? The copyright and intellectual property attitudes of comic book fans. *International Journal of Communication*, 6, 751–772.
- Straw, W. (2009). The circulatory turn. In B. Crow, M. Longford, & K. Sawchuk (Eds.), *The wireless spectrum: The politics, practices and poetics of mobile media*. Toronto, Canada: University of Toronto Press.
- Taylor, D. (2009). *The digital as anti-archive?* Retrieved from <http://ondemand.duke.edu/video/20240/the-digital-as-anti-archive>
- THEListKeeper. (n.d.). *THEList.txt (condensed)*. Online document housed in BitTorrent cloud.
- Toffler, A. (1980). *The third wave*. New York: Morrow.
- Wershler, D., Sinervo, K., & Tien, S. (2013). A network archaeology of unauthorized comic book scans. *Amodern 2: Network Archaeology*. Retrieved from <http://amodern.net/article/a-network-archaeology-of-unauthorized-comic-book-scans>

Wershler-Henry, D. (2002). *FREE as in speech and beer: Open source, peer-to-peer and the economics of the online revolution*. Toronto, Canada: Financial Times Press.

WikiNoticia. (2012). *MediaFire and RapidShare downloads delete their Google*. Retrieved from <http://en.wikinoticia.com/Technology/internet/108464-mediafire-and-rapidshare-downloads-delete-their-google>

Žižek, S. (1989). *The sublime object of ideology*. London: Verso.

## KEY TERMS AND DEFINITIONS

**Archives:** Collections of historical records and the locations where they are housed. Though the subject of whether collections of digital files constitute archives is hotly contested, “archive” has become a common metaphor for large collections of files, in part because software compression tools have long been described as “archiving software.”

**Circulation:** Media theory and political economy deal comfortably with matters of production and consumption, but circulation that happens in between production and consumption receives short shrift. In this chapter, we are concerned with a variety of kinds of circulation, including the circulation of comic book scans, various discourses of legitimation and stigmatization, technical knowledge, etc. The process of circulation alters both the networks in which acts of circulation take place (and therefore culture itself) and the objects in circulation.

**Comic Books:** Collections of sequential art that have been collated and published together. The first examples of what we would now recognize as print comic books appeared in the United States in the late 1920s and early 1930s. Today, no specific medium, format, genre or length defines what constitutes a comic book, nor are there any criteria about whether the material in comics has

previously appeared elsewhere (e.g., in newspaper serials) or is original to its appearance in the comic book itself. Many comic “books” are now digital, whether born-digital or subsequently converted.

**Digital Comics:** “Digital comics” is a very broad category that includes many different forms of sequential art, circulated in a variety of digital formats. The category of digital comics includes, but is not limited to: digital comic strips, photocomics, webcomics, born-digital book-length comics, comics on DVD-ROM or CD-ROM, motion comics, etc. Digital comics may be born digital or scanned from print sources and subsequently edited or otherwise manipulated. In this chapter, we deal only with the latter.

**Format:** In the criticism of Charles Bernstein and Lisa Gitelman, “format” is a middle term between medium and genre. Format has to do with the ways in which a given medium is shaped for particular communicative acts, in the context of particular circulatory regimes.

**Intellectual Property:** The artificial assigning of property rights to creations of the mind (ideas that have been made manifest in some fixed form). There are different regimes of intellectual property, including, but not limited to, copyright, patents, trademarks, and trade secrets. Moreover, though there is now a range of global treaties that ostensibly manage intellectual property worldwide, regimes of intellectual property are culturally and historically specific. Indigenous peoples have their own traditions of cultural ownership that are frequently quite different from other intellectual property systems. The range of beliefs that Internet users have about the validity of the concept of intellectual property itself runs the full gamut from anarchism to copyright maximalism.

**Networks:** Sets of people, objects, discourses, and institutions that have been connected together in some fashion that enables interchanges to occur between them. Digital networks are systems in which various types of computers have been linked together to facilitate communication, with varying degrees of stability; digital networks can



also be parts of larger networks that contain other kinds of entities and objects. This chapter uses the term “network” to refer to both digital networks such as the Internet and its various peer-to-peer technologies, and social assemblages such as the network of people involved in the process of comic book scanning.

**Piracy:** Traditionally, piracy is the act of taking someone else’s property (often forcibly) and selling it. In the 21st century, the term has often been applied to acts of digital copyright infringement, usually by agents of the media industries (film, television, music, publishing), though critics such as Lawrence Lessig and Adrian Johns argue that the metaphor of piracy is a poor fit for such actions. Some comic book scanners self-identify as pirates, but the epithet is more likely to be applied to them by journalists.

**Scanning:** In this chapter, scanning refers to the process of converting print comic books to digital format by scanning or photographing

their pages digitally, converting the raw scans to a common format, sometimes digitally correcting the resulting files, then packaging them for circulation as a digital comic in one of several recognized digital comic file formats (commonly, CBR or CBZ). Scanning is usually a team-based process, involving several people with distinct roles as scanners, editors, and distributors.

**Subculture:** In the sense that cultural critic Dick Hebdige used the term, a subculture is the product of a crisis in social consensus a subordinate cultural group with its own rituals and forms, the significance of which are difficult to establish. Because subculture often seems too stable a notion to describe its object, cultural theory since the 1970s has proposed a number of alternative terms, including neo-tribalism, scenes, and circulatory regimes. In this chapter, we use the latter notion, but delineate the origins of the concept in theory that originates in Hebdige’s notion of the subcultural.