The Evolution of UContent

User-generated content (UContent) drives more than half the websites listed in the top 10 most popular internet destinations. A glance at website traffic statistics from the California-based internet information service Alexa (www.alexa.com) shows Facebook in second place, YouTube in fourth, Wikipedia in fifth, Myspace in sixth, Blogger in seventh, eBay in ninth, and craigslist in tenth. Outside the top 10, we find blog host WordPress in the 20th position and Flickr in the 21st.[1] If that list is valid, recent projections by eMarketer, a firm that aggregates, filters, and analyzes digital marketing data from 4,000 sources, shouldn't surprise us. In April 2008, eMarketer projected that there would be 102 million UContent creators in 2011 (that's nearly half of all web users in the U.S.); it also projected that 139 million people would consume UContent (that's 66 percent of all web users in the U.S.). Tables 1.1, 1.2, and 1.3 illustrate the prodigious creation and consumption of UContent.

To summarize the main points of eMarketer's research, blogs are consumed more than any other content; social networking is the second most popular UContent, video viewers are third, and wiki content is the least frequently consumed type of UContent.

Appropriately subtitled "The Impacts of High-Speed Connections Extend Beyond Access to Information to Active Participation in the Online Commons," a report by John Horrigan for the Pew Internet & American Life Project issued findings that reinforce those of the eMarketer surveys. Horrigan writes, "The Pew Internet Project reported in a 2006 survey that 44 percent of home broadband users had done at least one of the following: having one's own blog or webpage, working on group blogs or webpages, remixing digital content and re-posting it online, or sharing something online created by the user (i.e., artwork, photos, stories, or videos)."[2]

Horrigan concludes that early broadband access to the web was adopted by only a "modest fraction of leading edge users," but recent expanded access via broadband (nearly half of all people in the U.S. had broadband connections in 2007) opened the doors to the internet to a much larger group of users. Broadband users are far more likely to generate UContent than dial-up

Table 1.1 Creators of UContent, U.S., 2007–2012 (in millions and percentage of internet users)

Year	Millions of internet users	By percentage of total internet users
2007	77.1	41.0
2008	83.0	42.8
2009	89.2	44.6
2010	95.7	46.4
2011	102.1	48.2
2012	108.5	50.0

Note: This table covers individuals who create any of the following online at least once per month: video, audio, photos, personal blogs, personal websites, online bulletin board postings, customer reviews, or personal profiles in social networks or virtual worlds.
[Source: eMarketer, "May 2008: User-Generated Content, Fad or For Real?," Interactive Advertising Bureau, May 2008, accessed August 3, 2011, www.iab.net/insights_research/947883/1675/287430?preview =1&psid=1&ph=bb5f]

users are. These new broadband users have a different vision for the internet, and consequently UContent "has shaped broad expectations about the primary purpose and uses of cyberspace."[3]

Other research demonstrates with statistics that increasing participation in UContent is worldwide:

- "Over half the U.K.'s population (53 percent) are now creating and actively sharing content online, heralding a wave of openness that utilizes blogs, video, audio, forums, reviews and comment."[4]

Table 1.2   Consumers of UContent by content type, U.S., 2008–2013 (as a percentage of all internet users)

	2008	2009	2010	2011	2012	2013
User-generated video	36.0	39.8	42.5	44.8	47.2	49.2
Social networking	41.2	44.2	46.9	49.1	50.5	51.8
Blogs	54.0	58.0	61.0	64.0	67.0	69.0
Wikis	33.9	36.6	39.0	41.0	42.6	43.9
UContent consumers	60.0	62.0	64.0	66.0	68.0	70.0

[Source: "User-Generated Content Draws Fans," eMarketer, February 3, 2009, accessed August 3, 2011, www.emarketer.com/Article.aspx?R=1006895]

- "Chinese netizens have published 1.13 billion items of user generated content (UGC) in 2009, more than tripling the amount in 2008, according to Daqi.com, a social media aggregation and marketing company in China. The UGC included forum posts, blogs, videos, and other media. In addition, statistics show that 73 percent of China's netizens use instant messengers, such as MSN and 222 million netizens access video sharing websites, and 181 million are bloggers."[5]

- Japan has 6.2 million bloggers and 25.4 million blog readers.[6]

An interesting footnote: One research article discovered that UContent follows the "90-9-1 Participation Inequality Rule." By analyzing the traffic at 11 websites that publish UContent, Ochoa and Duval proved that 90 percent of UContent users do not contribute, 9 percent contribute intermittently, and 1 percent contribute significantly to the sites.[7]

UContent: A Brief History

UContent, also called *peer production*, *user-created content*, and *consumer-generated media*, has been variably defined as "content created and published by the end users online,"[8] "various kinds of media content, publicly available, that are produced by end users,"[9] "a website where either the entire content or large portions of it are contributed by the site users,"[10] "a

Table 1.3   Consumers of UContent by content type, U.S., 2008–2013 (in millions of UContent consumers)

	2008	2009	2010	2011	2012	2013
User-generated video	69.4	79.2	87.3	94.4	102.0	108.0
Social networking	79.5	88.1	96.2	103.6	109.1	114.6
Blogs	104.1	115.5	125.2	135.0	144.7	152.6
Wikis	65.4	73.0	80.1	86.4	92.1	97.1
UContent consumers	115.7	123.5	131.4	139.2	146.9	154.8

[Source: "User-Generated Content Draws Fans," eMarketer, February 3, 2009, accessed August 3, 2011, www.emarketer.com/Article.aspx?R=1006895]

realm where people are not only consuming content, but also participating in creating content,"[11] and "content made publicly available over the internet which reflects a certain amount of creative effort, and is created outside of professional routines and practices."[12] These definitions are all approximately equal. My personal favorite, because it focuses on the fact that the content creator is not remunerated, is "the production of content by the general public rather than by paid professionals and experts in the field."[13]

Search the web for information on the origins of UContent and you'll discover a number of educators, students, bloggers, and businesspeople agreeing that UContent's history goes back about 32,000 years to paleolithic cave paintings. A trifle more recently, we can track the roots of "talk radio," another form of UContent, to 1930, when disc jockey John J. Anthony asked his listeners to phone the station and then repeated their comments for his radio audience.[14]

In tracing the history of UContent on the internet, let's acknowledge that Professor Michael Hart, founder of Project Gutenberg, deserves the distinction of entering text online for no other reason than to make it available for other users. He did this in 1971, when he was but a college freshman, by manually keying the Declaration of Independence into a TeleType RSS33. The RSS33's output was then fed into the Xerox Sigma V mainframe computer residing in the Materials Research Lab at the University of Illinois.[15] Thus he became the first producer of UContent on the internet. After Hart entered the Declaration, the production uploaded to Project Gutenberg was relatively scant for about 2 decades (Project Gutenberg now offers 30,000 titles at www.gutenberg.org, and more than 100,000 through its partners and affiliates). Between 1971 and

1979, Hart entered one book per year; he spent 1980–1990 working on the Bible and the works of Shakespeare.

Content on the web, however, is obviously not dependent on any one person. Although Hart's initial contribution was seminal, many critical events have occurred since. When reconstructing UContent's evolution, it's useful to consider these events separately and as part of the whole UContent phenomenon. It may also be interesting to reflect on where you were—professionally or educationally—when they occurred.

Although not directly related to the internet, but nevertheless of importance, in 1972 the Federal Communications Commission mandated that all cable television providers offer a public access television channel.[16] This event is clearly indicative of the movement toward the democratization of information, a hallmark of Web 2.0 and UContent. According to the Hobbes' Internet Timeline, the next notable event in UContent was the establishment of Usenet in 1979.[17] Created at Duke University by Tom Truscott and Jim Ellis, two graduate students who sought a means to send emails and files organized by categories, Usenet was born when they connected with computers at the University of North Carolina through their friend Steve Bellovin. Usenet eventually became an international conferencing network; the topical categories became known as Usenet Newsgroups. Hundreds of forums emerged (e.g., The Quilting Beehive, lt.autos.subaru, eLearning Technology and Development, and Club Britney Spears) that allowed end users to post questions and discuss topics of mutual interest. The Usenet Newsgroups' messages were searchable through Deja News, acquired by Google in February 2001 with a name change to Google Groups.[18]

Electronic bulletin boards gave individuals another place to be creative. On September 19, 1982, Scott Fahlman, a research scientist, formally wrote this message to his colleagues on the Carnegie Mellon computer science bulletin board service:

> I propose the following sequence for joke markers:
>   :-)
> Read it sideways. Actually, it is probably more economical to mark things that are *not* jokes, given current trends. For this, use:
>   :-(

And by hitting Enter, he became the "inventor" of the ASCII-based emoticon known as the *smiley*. Fahlman says the idea occurred to him after reading "lengthy diatribes" from people on the message board who failed to get the joke or the sarcasm in a particular post—which is probably what "given current trends" refers to in his now-famous missive.[19]

Computer scientists continued to flex their creative muscles in the 1980s. In 1984, Apple announced the Macintosh, and the number of individual computer users increased dramatically. In 1989, Tim Berners-Lee was working as a research fellow in Switzerland at the Conseil Européen pour la Recherche Nucléaire (CERN; European Organization for Nuclear Research) when he proposed a global project "designed to allow people to work together by combining their knowledge in a web of hypertext documents."[20] This was, of course, the birth of the World Wide Web.

The concept of remote, asynchronous collaboration is yet another characteristic of Web 2.0 and UContent. Early in 1993, Marc Andreessen and Eric Bina were both working at the National Center for Supercomputing Applications at the University of Illinois at Urbana–Champaign when they developed Mosaic, the internet's first graphical browser, released as a free download.[21]

Individual end users, now armed with Berners-Lee's hypertext network and free browser software, could begin to interact easily with each other and with content on the World Wide Web. In January 1994, Justin Hall, then a freshman at Swarthmore College (presently a producer of games for the iPhone), "did a carpe diem" and scooped the distinction of being the world's first online diarist with Justin's Links From the Underground, which he still maintains at www.links.net. Librarians arrived pretty quickly on the scene; in 1995, Jenny Levine (also known as The Shifted Librarian) began the Site du Jour blog. Along with blogs came services such as Geocities, founded in 1994, which provided users with free personal homepages.[22]

Individuals willing to share their lives with the public appeared on the scene with Jenni Ringley, acknowledged as the first *lifecaster*. In 1996, Ringley began transmitting still images of her comings and goings, refreshed every 3 minutes, via JenniCam.[23] Ringley closed her operation in 2003 as blogging became the most prominent trend in UContent.

Two significant events occurred in 1999: First, the shortening of *weblog* to *blog*, attributed to Peter Merholz, who states he merely shifted syllables from *web-log* to *we-blog*.[24] In the same year, Blogger (www.blogger.com), developed by Pyra Labs, offered basic blogging software and storage space on the World Wide Web for free, while charging for premium features. Google acquired Blogger in 2003.[25]

Blogging is not a unidirectional event. Although a blog post begins as an individual's statement, most blogs permit comment from readers; this is what makes blogs truly collaborative. According to eMarketer surveys, blogging is (and will continue to be) the most popular form of UContent.[26]

While all this blogging was going on, another Web 2.0 feature was developing. Early in 1995, as software engineer Ward Cunningham pondered a simple way to both share ideas about solutions to recurring design problems and get

colleagues involved in those solutions, he created the first wiki software (called Wiki Wiki Web; see c2.com/cgi/wiki?WikiWikiWeb), and founded the first wiki (called the Portland Pattern Repository; see c2.com/ppr).[27] Cunningham almost called the software QuickWeb, but states that he wanted an "alliterative substitute," and the phrase *wiki wiki* (meaning *quick* in Hawaiian) was the "first Hawaiian term [he] learned on [his] first visit to the islands."[28] As we all know by now, the wiki, as in Wikipedia (which came online in 2001), plays a distinct role in UContent.

Led by researchers in high-energy physics and mathematics, digital collections of scholarly *preprints* (that is, papers published online prior to traditional peer review; see, for example, arXiv.org) appeared in the 1970s and may have paved the way for Berners-Lee's hypertext protocol. But a slightly different form of UContent, open access publishing of scholarly articles, arrived more formally in 2001 when a team of biomedical scientists launched the Public Library of Science (www.plos.org). Its journals are peer reviewed, but the open access model makes the literature available without high-priced subscriptions; in fact, the literature is free. The open access model is a major element in the Web 2.0 concept, which suggests that the publishing process itself will move out of the realm of publishers and into the realm of participants.

User review sites came on the scene in the 1990s. Among them were Am I Hot or Not?, Rate My Professors, Edmunds.com (automobile reviews), CNET (electronics reviews), Epicurious.com (recipes and cooking), and Amazon.com (print, audio, video, and other products).

Another step toward user content creation and collaboration came in 2002, when the Creative Commons Corp. released its first set of copyright (sometimes called *copyleft*) licenses. Based on the Free Software Foundation's GNU General Public License (GNU, a recursive acronym for "GNU not UNIX!," refers to a free software operating system created by Richard Stallman), the Creative Commons licenses help content creators license freely on the basis of usage or certain conditions in order to place work directly in the public domain.[29]

Social bookmarking, another form of UContent, dates back to 2003, when Delicious (www.delicious.com) began facilitating informal classification of website content by allowing its users to give labels (or *tags*) to the bookmarks representing the sites in its users' accounts. Shortly after the launch of Delicious, Thomas Vander Wal coined the term *folksonomy* (a "from the bottom up" vocabulary created by "folks," in contrast to a top-down hierarchical taxonomy, or *authority file*) and defined its characteristics as follows: 1) It is the result of personal free tagging of pages and objects for one's own retrieval, 2) the tagging is *usually* done in a social environment (shared and open to others), and 3) the tagging is done by the person consuming the information.[30,31]

Of course, many sites have adopted tagging, including Flickr (in 2004) and LibraryThing (in 2005).

Vander Wal may have coined *folksonomy*, but Clay Shirky, in a 2005 blog posting called "Ontology Is Overrated," advanced the case for tagging by stating, "A library catalog, for example, assumes that for any new book, its logical place already exists within the system, even before the book was published. That strategy of designing categories to cover possible cases in advance is what I'm primarily concerned with, because it is both widely used and badly overrated in terms of its value in the digital world." But Shirky wasn't singling out library classification systems. He also found the Yahoo! Directory's classifications unnecessarily restrictive. The reason neither of these work well, he contended, is that the users know nothing about the classification systems—they simply know what they are looking for. Shirky continued, "One of the biggest problems with categorizing things in advance is that it forces the categorizers to take on two jobs that have historically been quite hard: mind reading and fortune telling. It forces categorizers to guess what their users are thinking, and to make predictions about the future."[32]

There is some debate over whether website designer Darcy DiNucci (in a 1999 journal article)[33] or tech book publishing magnate Tim O'Reilly (at a 2005 conference) coined the term *Web 2.0*. (The concept is usually associated with O'Reilly because his company has sponsored several Web 2.0 conferences.) Several Web 2.0 characteristics, as described by O'Reilly, touch directly on UContent phenomena. Specifically, Web 2.0 is a platform for many UContent services. Among the distinctions between Web 1.0 and Web 2.0 are transitions from content management systems to wikis, from taxonomies to folksonomies, and from publishing to participation.[34]

Citizen journalism, another hue on UContent's palette, has become increasingly popular. The middle years of the past decade brought us at least two prominent citizen journalism sites. The Global Voices website (www.globalvoicesonline.org), a product of ideas discussed at an international bloggers' meeting held at Harvard, was founded in 2004. Global Voices put international citizen journalism on the map. It screens thousands of blogs worldwide to "help all voices, everywhere, to be heard."[35] In 2006, CNN added its UContent section iReport to its website. The iReport section invites readers to submit reports, images, and video. And in 2009, the *New York Times* website launched two "local" editions staffed by citizen journalists. The locals are blogs that cover Fort Greene and Clinton Hill in Brooklyn, New York, and Maplewood, Millburn, and South Orange in New Jersey.

Other developments demonstrate individuals' increasing involvement with UContent: Google's 2008 launch of Knol (knol.google.com), where users can easily contribute articles on a wide range of topics, and the Library of Congress's 3,000-image photostream at Flickr, the photo sharing site

(www.flickr.com/photos/library_of_congress). See Figure 1.1 for a timeline of many of these events.

Researchers Boyd and Ellison have stated that social networks have three distinct characteristics: 1) They allow individuals to post personal profiles, 2) they also allow users to establish lists of connections or groups with whom they share some common interest, and 3) they allow users to view the lists of connections that others have posted on the network.[36] These authors traced social networking sites back to the 1997 launch of SixDegrees.com, a site based on the "six degrees of separation" concept (an unproven theory that asserts that if a person is one step away from each person they know and two steps away from each person who is known by one of the people they know, then everyone is, at most, six steps away from any other person on Earth). Appearing on the scene in 1999, LiveJournal allowed users to select which other site members could follow their journals. But the explosion in social networking sites coincided with the millennium. Friendster, LinkedIn, Myspace, Flickr, YouTube, Xanga, and Facebook all appeared between 2000 and 2006. These popular networking sites have attracted massive numbers of users. Facebook alone claimed 500 million users in 2011; the LinkedIn blog reported hitting 100 million members in March, 2011.[37,38] And people watch 2.5 million YouTube videos each day.[39]

Chatroulette, the newest UContent craze, puts users with webcams in touch with other users with webcams—at random! Once you're connected, you may be chatting on your webcam with someone across town or across the globe. National Public Radio's Omar Gallaga checked it out in March 2010 and provided a link to chatroulette.com. He blogged, "[I] should warn you before clicking the link for the site that you will see some *very* inappropriate things in the course of using it and you should keep kids far, far, *far* away from it. Personally, I found it to be disturbing, entertaining and strangely addictive once you get over the initial nervousness of chatting and if you have a strong stomach."[40]

Point/Counterpoint

Anything as popular and widespread as UContent, a phenomenon that seems to favor the average computer user over the experts, is bound to generate contrasting opinions. Is content contributed by end users of any value? Can it be trusted? Has it infringed on anyone's intellectual property? Who owns it? Does it have an impact on business? What are its legal implications? Numerous articles, presentations, and even a few books have been authored that attempt to answer these questions.[41]
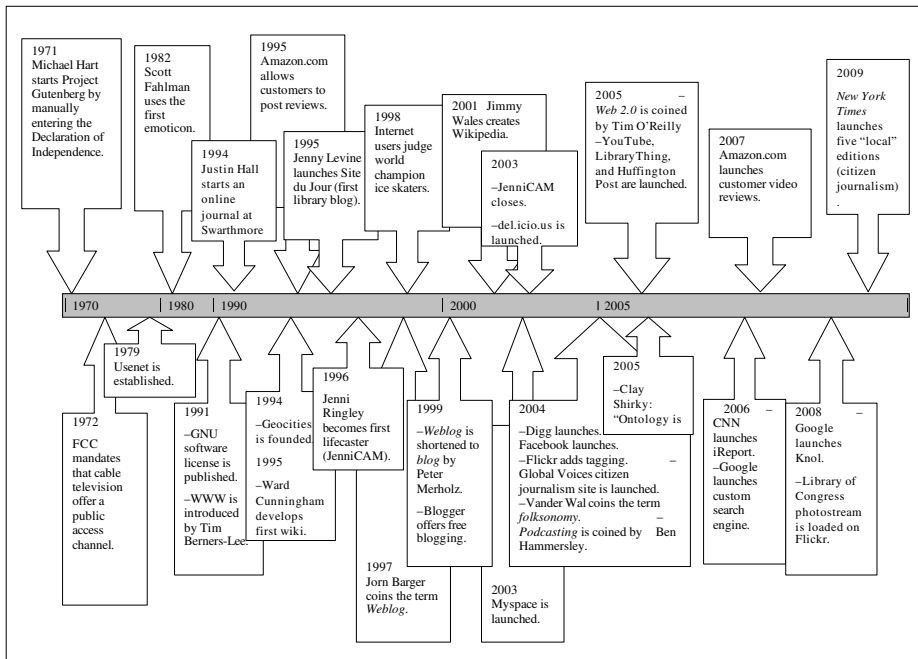
Figure 1.1 This timeline outlines events related to the internet and UContent.

On December 13, 2006, *Time* magazine proclaimed that its Person of the Year was You. In a short essay that took exception to Thomas Carlyle's belief that "the history of the world is but the biography of great men," writer Lev Grossman observed that the year 2006 was a story of "the many wresting power from the few."[42] He was talking about communication, collaboration, and participation on a global scale—about the "new web." The article managed to mention most of the big UContent entities—Facebook, Wikipedia, Myspace, YouTube, Second Life—as it celebrated everything from blogging and podcasting to video uploading and mashups. The Person of the Year was anyone involved in creating user-generated content.

Just 3 days earlier, *New York Times* music critic Jon Pareles offered a different take on UContent, which he called "a tsunami of self-expression," while asking "why keep your creativity, or lack of it, to yourself when you can invite the world to see?" He cynically submitted, "Now that web entrepreneurs have recognized the potential for profit, it's also a sweet deal: amateurs, and some calculating professionals, supply the raw material free." Then he added a backhanded compliment: "It's often inept, but every so often it's inspired, or at least worth a mouse click." As for the theory that a democratic web permits everyone's voice to be heard and face to be seen, he remarked, "The promise of all the self-expression online is that genius will reach the public with fewer

obstacles, bypassing the entrenched media. The reality is that genius has a bigger junk pile to climb out of than ever, one that requires just as much hustle and ingenuity as the old distribution system."[43]

Grossman and Pareles aren't the only two word-slingers in this debate. Commenting on *Time*'s tribute, political satirist Greg Gutfeld vented, "You may be chatting globally, but you're alienating yourself locally. The web does not connect people—it ramps up a mob mentality masquerading as community."[44] Also caught up in the fray, prolific author Nicholas Carr, known for his articles in the *Harvard Business Review* ("IT Doesn't Matter") and *Atlantic Monthly* ("Is Google Making Us Stupid?"), whipped up a blog post riposting Kevin Kelley's *Wired* article in which the web was venerated as "spookily god-like." Carr refers to several examples of bad writing in Wikipedia and importunes, "it seems fair to ask exactly when the intelligence in 'collective intelligence' will begin to manifest itself."

Reading these two assessments side by side is interesting and entertaining. On one hand we have Kelley, in sheer wide-eyed wonderment, musing:

> Everything media experts knew about audiences—and they knew a lot—confirmed the focus group belief that audiences would never get off their butts and start making their own entertainment. Everyone knew writing and reading were dead; music was too much trouble to make when you could sit back and listen; video production was simply out of reach of amateurs. Blogs and other participant media would never happen, or if they happened they would not draw an audience, or if they drew an audience they would not matter. What a shock, then, to witness the near-instantaneous rise of 50 million blogs, with a new one appearing every two seconds. There—another new blog! One more person doing what AOL and ABC—and almost everyone else—expected only AOL and ABC to be doing. These user-created channels make no sense economically. Where are the time, energy, and resources coming from? The audience.[45]

Carr, on the other hand, soberly asserts, "I'm all for blogs and blogging. (I'm writing this, ain't I?) But I'm not blind to the limitations and the flaws of the blogosphere—its superficiality, its emphasis on opinion over reporting, its echolalia, its tendency to reinforce rather than challenge ideological extremism and segregation."[46]

The champion of expert over amateur, by his own proclamation, is Andrew Keen. In *The Cult of the Amateur: How Blogs, Myspace, YouTube, and the Rest of Today's User-Generated Media Are Destroying Our Economy, Our Culture, and Our Values*, we find a number of tenable arguments against allowing ourselves

to be part of Web 2.0's "seduction" (from Chapter 1, The Great Seduction). For example:

> Before the Web 2.0, our collective intellectual history has been one driven by the careful aggregation of truth—through professionally edited books and reference materials, newspapers, and radio and television. But as all information becomes digitized and democratized, and is made universally and permanently available, the media of record becomes an internet on which misinformation never goes away. As a result our collected information becomes infected by mistakes and fraud.[47]

That assertion, taken alone, is reasonable, and many reviewers agree with Keen's essential premise. They ultimately, however, find his unabated zeal and strident tone disagreeable. Prolific freelance journalist Toby Lichtig summarizes this general consensus: "Many of Keen's gripes in *The Cult of the Amateur* are reasonable; but, like his target, they dissolve in a miasma of polemical generalization and frenzied verbiage."[48] If we're looking for internal inconsistencies in Keen's thesis, we need look no further than Wikipedia co-founder Larry Sanger's comments in *New Scientist*. Sanger noted that Keen asserted amateur encyclopedias would put reference book publishers out of business:

> So how does Keen propose we solve our Web 2.0 woes? The first "solution" he refers to is a new website I have started called the Citizendium (www.citizendium.org), or the Citizens' Compendium, which I like to describe as Wikipedia with editors and real names. But how can Citizendium be a solution to the problems Keen raises if it has experts working without pay and the result is free? If it succeeds, won't it too contribute to the decline of reference book publishing?[49]

Carol Tenopir, professor of information sciences at the University of Tennessee, was willing to look at Keen's book through a librarian's lens:

> Enthusiasts tout the democratizing effect of Web 2.0. Keen warns, however, that when users and participants buy into the ideal that anyone can contribute information, we lose the accuracy that comes from reliance on experts. Indeed, expert authors and creators (and librarians) have valuable training, knowledge and experience.[50]

UContent detractors often argue that many individuals who create content simply aren't that talented. Blogger Mark "Rizzn" Hopkins of Mashable.com (168th most popular website in the U.S. with 28,000 incoming links) opined, "There are only a finite amount of folks with talent, and while the technologies enable them to be found easier, in no way should we think there is value lurking in the average internet user."[51] Writing in *Adweek,* Mark Wnek complained that enthusiasm for technology and the love of immediate publication have led to poor writing.[52] In a "Debate Room" column of Businessweek.com, poet and fiction writer Sarah Davis suggested that Wikipedia, with its 9 million articles, and YouTube, where viewers watch 100,000,000 videos a day, are "flirtations with excess." She continued, "Gen Y members were told as kids they were special—and the user generated content trend feeds into that sentiment, which is blessedly false." Freelance pundit David Kiley, expressing an opposing viewpoint, said that the high use Davis referred to attests to a remarkable level of user engagement.[53]

Several endorsements for UContent emanate from the peer-reviewed literature. Guosong Shao, a professor in the Department of Communication at Pittsburg State University (Kansas), found that we use UContent for 1) *participating* in user-to-user social interaction (which enhances social connection), 2) *consuming* information and entertainment (creators have dramatically reduced entertainment content to light, bright, and digestible "snack food"), and 3) *producing* for self-actualization (self-expression is achieved through online behaviors such as blogging).[54] Ochoa and Duval stated that the most complete database of compact disc album and track information was CDDB and noted that it was not created by recording companies but by combining the submissions of anonymous end users who entered their personal cataloging.[55] If you've heard of Gracenote, you know about CDDB. Gracenote is the service launched in iTunes when you upload a CD to your library: It identifies the tracks. That brings us to another criticism.

Business Discovers UContent

As mentioned in the preceding paragraph, CDDB was originally created by end users adding track information to the database. Later, all that information was sold; the service called Gracenote now owns the information that end users contributed. Gracenote certainly is not the only case of profiting from material submitted by users. Technology writer N'Gai Croal, who observed that 10 hours of video is uploaded to YouTube every minute (the equivalent of 57,000 full-length films per week), wrote, "Whether they're creating content for sites such as YouTube and Wikipedia, viewer-submitted news services such as CNN's iReport or videogames such as Spore and

LittleBigPlanet, today's most valuable employees will most likely never set foot inside the building—or collect a paycheck." But then he asked, "Is it really a sweatshop if none of the workers is complaining?"[56]

Jeffrey Young, reporting for the *Chronicle of Higher Education*, introduced me to the concept of *crowdsourcing*: getting the public to do the work of the company. It seems that some college IT help desks are so swamped, the workers ask students and faculty to pitch in—and those who are able to help will help on a volunteer basis.[57] *Wired*'s Jeff Howe tells a similar story of a professional photographer who, even when he cuts his rates, can't compete with iStockphoto (which evolved from a free photo sharing site) where amateur photographers post images selling for as low as $1:

> Technological advances in everything from product design software to digital video cameras are breaking down the cost barriers that once separated amateurs from professionals. Hobbyists, part-timers, and dabblers suddenly have a market for their efforts, as smart companies in industries as disparate as pharmaceuticals and television discover ways to tap the latent talent of the crowd. The labor isn't always free, but it costs a lot less than paying traditional employees. It's not outsourcing; it's crowdsourcing.[58]

Businesses know, of course, that UContent can mean dollars for them. In fact, during a web search, I happened on a site devoted to the "principles of user generated content" (www.ugcprinciples.com). Before I actually accessed the site, I thought perhaps it might have been underwritten by software developers or citizen journalists or bloggers. I was surprised when I found that the supporters listed on the page at that time included CBS, Disney, Fox Entertainment, Microsoft, NBC, Sony, and Viacom. The page was subtitled "Foster Innovation. Encourage Creativity. Thwart Infringement." It stated the importance of not infringing on copyright, and frequently mentioned that copyright owners should file "reference material" with companies that permit UContent so that companies that permit UContent could monitor the possibility of intellectual property theft.

Dara Solomon, a content manager for FunAdvice.com (a website that provides counseling on personal relationships), enumerated several pros and cons of UContent in an online interview:

Pros

- It gives people a voice. An example is the street reports on Iranian election fraud.

- It's simpler for businesses—content is being written for you.

- Teens are using computers and handhelds more and more—if you can capture that audience, you're pretty well set for the future.

Cons

- You have to moderate it. You must consider how much work is involved with that.

- You must make sure no illegal or abusive activity occurs on your watch.[59]

Do businesses want your content? You bet they do! And they want it without taking on any liability. Here are excerpts of the UContent policies from two high-profile organizations:

> *American Red Cross:* Please note that if you post, upload or otherwise make available any User Generated Content on our Websites, you will still own the User Generated Content (assuming you have rights to own it) but you are giving us the right to use your User Generated Content. That means that if you send in, post, upload, make available, or disclose to us in any way any user-generated content, you grant us, our affiliates and related entities, the right use it any way we want in any medium without getting your permission or having to pay you for it. In legal terms, by providing us with any user-generated content, you grant us and our affiliates and related entities, a worldwide, royalty-free, perpetual, irrevocable, non-exclusive right and fully sub-licensable license to use, copy, reproduce, distribute, publish, publicly perform, publicly display, modify, adapt, translate, archive, store, and create derivative works from such user-generated content, in any form, format, or medium, of any kind now known or later developed. You waive any moral rights you might have with respect to any user-generated content you provide to us.[60]

> *NIKE:* If you post any ideas, remarks, questions, data, graphics, opinions, designs, customizations, ID's (including product customisations on NIKEiD.com) or other information (including info on bulletin boards, chat rooms or other forums on the website(s)) (hereafter "User generated Content"), on the Website(s), or if you send such User Generated Content through the Website(s) to Nike, this will become the exclusive property of NIKE. The User generated Content will be deemed to be non-confidential and we will be

> entitled to use or disclose the User Generated Content in any man-
> ner whatsoever, without liability or notice to you.[61]

The latter fragment not only illustrates Nike's desire to own whatever UContent is deposited on its sites, but in a classic case of having one's cake and eating it too, the company also disclaims any liability associated with what a user contributes to its website. And this brings us to another major issue of UContent.

Legal Ramifications of UContent

Attorneys Robert P. Latham, Carl C. Butzer, and Jeremy T. Brown specialize in intellectual property law at the firm of Jackson Walker in Dallas, Texas. Their 2008 article in *Intellectual Property & Technology Law Journal* provides lessons for sponsors of webpages containing UContent; the most important intellectual property issue is copyright infringement. Businesses or individuals hosting UContent should be aware that there are three types of copyright infringement: *direct infringement*, *contributory infringement*, and *vicarious infringement*:

> UGC [i.e., UContent] service providers could face liability for copy-
> right infringement under any of the three theories of copyright lia-
> bility. For example, a service provider might be liable for direct
> infringement for violating the copyright holder's distribution
> rights by displaying certain UGC and distributing it across the
> internet. A service provider could be liable for contributory
> infringement if it knows that UGC is infringing another's copyright
> and facilitates the distribution, display, etc., of the infringing mate-
> rial. Finally, a service provider that profits from the infringing con-
> tent may by vicariously liable if it has the means to monitor and
> detect infringing activity, yet allows the activity to occur because
> this allows the service provider to generate increased profits.[62]

Latham, Butzer, and Brown go on to say that the Digital Millennium Copyright Act (DMCA) of 1998 creates four limitations on liability for copyright infringement by internet service providers. Of these "safe harbors," UContent service providers will probably invoke the protection of the DMCA under section 512(c), which affords immunity from liability for copyright infringement "by reason of the storage at the direction of a user of material that resides on a system or network controlled or operated by or

for the service provider." The service provider must also meet the following eligibility requirements:

- The service provider must not have "actual knowledge" of infringing activity.

- In the absence of "actual knowledge," the service provider must not be aware of facts or circumstances from which infringing activity is apparent.

- Upon obtaining actual knowledge or awareness, the service provider must act expeditiously to remove or disable access to the infringing material.

- The service provider cannot receive a "financial benefit directly attributable to the infringing activity," when the service has the "right and ability to control" such activity.

- Upon proper notification of claimed infringement, the service provider must respond expeditiously to remove or disable access to the infringing materials.

- The service provider must have designated an agent to receive DMCA notices and provided the requisite contact information on its website and to the [U.S.] Copyright Office.[63]

Example of a Case of Copyright Infringement

In the case *Viacom v. YouTube*, decided by the Manhattan federal judge Louis Stanton in 2010, Viacom alleged "massive intentional copyright infringement." YouTube countered that it promptly takes down infringing materials when notified by rightsholders. Viacom also alleged that YouTube facilitates infringement by allowing users to make hidden videos available to others through features such as Embed and Share. Viacom claimed to have identified on YouTube 63,000 unauthorized clips taken from 3,000 of Viacom's films and TV shows.[64] "Judge Stanton concluded that it was against the DMCA's purpose to hold YouTube legally liable for every video uploaded on the website—some 20 hours of video every minute—even if they might have had a general idea that the site was being used to violate copyright laws."[65] As of mid-2011, Viacom's appeal had not yet been heard, but a great deal was at stake regarding the issue of copyright.

A Google AdSense help page further illustrates the concern over copyright infringement and other possible points of law. Google AdSense warns participants to monitor the pages on which their ads appear. Google recommends

that advertisers perform a human evaluation of each page before an ad is placed. Advertisers should beware of UContent, making sure they do not put an ad on a page that violates someone's copyright, sells term papers, promotes violence or racism, or other inappropriate activities.[66]

Example of a Case of Defamation

The Communications Decency Act also provides immunity for service providers (under certain circumstances). Section 230 of Title 47 of the U.S. Code at part C states, "No provider or user of an interactive computer service shall be treated as the publisher or speaker of any information provided by another information content provider." On April 3, 2008, in the case of *Fair Housing Council of San Fernando Valley v. Roommates.com*, the court found that Roommates.com was not immune because it had developed a questionnaire that solicited information about sexual orientation and other roommate preferences.[67] In doing so, it had *invited* and *collected* end-user content that was deemed discriminatory.

Contributing UContent has implications for one's privacy and publicity rights and, potentially, the rights of others whom the UContent may touch upon. One case involves a billboard advertisement produced by Virgin Mobile that included a young woman's image Virgin Mobile had downloaded from Flickr. The photograph had originally been uploaded to Flickr by a member of the young woman's church. The person who uploaded it gave it a Creative Commons license by which others could use the image for commercial purposes with attribution to the creator (that's quite a generous license). In the case of *Chang v. Virgin Mobile* (2007), the attorney for the woman in the picture argued that the woman had never authorized the uploading of the photo and that when a photograph is the subject of privacy, a stakeholder may be someone in addition to the photographer. Virgin Mobile essentially prevailed because the case was dismissed for "lack of jurisdiction."[68] This case demonstrates that the person uploading content (in this case, an image file) and granting a license may not have permission to do so from everyone who has an interest in the content.

After this brief introduction to UContent's history, its pros and cons, and the legal issues it raises, we can now explore the different outlets in detail while having some fun creating content!

Endnotes

1. "Top Sites in the United States," Alexa, accessed August 3, 2011, www.alexa.com/topsites/countries/US.

2. John Horrigan, "Broadband: What's All the Fuss About?" Pew Internet & American Life, October 18, 2007, accessed August 3, 2011, www.pewinternet.org/Reports/2007/Broadband-Whats-All-the-Fuss-About.aspx?r=1.

3. Ibid.

4. Graham Jones, "New Age of Openness: U.K. Shares More Than Ever Before," EPN Newswire, October 15, 2009, Factiva, accessed March 3, 2011.

5. "China's Netizens Publishing More Original Content," Xinhua Electronics News, December 14, 2009, Factiva, accessed March 3, 2011.

6. Organisation for Economic Co-operation and Development, "Measuring User-Created Content: Implications for the ICT Access and Use by Households and Individuals Survey," January 28, 2008, accessed August 3, 2011, www.oecd.org/dataoecd/44/58/40003289.pdf.

7. Xavier Ochoa and Erik Duval, "Quantitative Analysis of User Generated Content on the Web," Web Science Direct, April 2008, accessed October 25, 2011, journal.webscience.org/34/2/Quantitative_Analysis_of_UGC.pdf.

8. Annemarie Hunter, "User Generated Content," SEO Glossary, accessed February 10, 2011, www.seoglossary.com/article/746.

9. "User-Generated Content," Wikipedia, accessed August 3, 2011, en.wikipedia.org/wiki/User-generated_content.

10. "Internet Advertising Glossary," AdWords University, accessed August 3, 2011, www.adwordsuniversity.co.uk/index.php?q=21.

11. Patrick Phillips, "Blog, Web Terminology You'll Be Using," We Want Media, accessed August 3, 2011, journalism.nyu.edu/publishing/archives/wewantmedia/node/207.

12. "Participative Web and User-Created Content: Web 2.0, Wikis and Social Networking," Organisation for Economic Cooperation and Development, October 2007, accessed October 25, 2011, www.oecd.org/document/40/0,3746,en_2649_34223_39428648_1_1_1_1,00.html.

13. "User-Generated Content," PCMAG.com Encyclopedia, accessed August 3, 2011, www.pcmag.com/encyclopedia_term/0,2542,t=user-generated+content&i=56171,00.asp.

14. "Timeline of Call-in Format in Radio & Television," C-SPAN.org, accessed August 3, 2011, legacy.c-span.org/C-SPAN25/timeline_a.asp.

15. Michael Hart, email message to author, February 14, 2010.

16. Douglas Kellner, "Public Access Television," Museum of Broadcast Communications, accessed March 1, 2011, www.museum.tv/eotvsection.php?entrycode=publicaccess.

17. Robert Hobbes Zakon, "Hobbes' Internet Timeline," accessed August 3, 2011, www.zakon.org/robert/internet/timeline.

18. For a detailed treatment of the history of Usenet, see "Netizens: An Anthology" at www.columbia.edu/~rh120 or "Giganews' Usenet History" at www.giganews.

com/usenet-history/index.html. Also, this timeline may be of interest: www.google.com/googlegroups/archive_announce_20.html.

19. Tony Long, "Sept. 19, 1982: Can't You Take a Joke?" Wired, September 19, 2008, accessed August 3, 2011, www.wired.com/science/discoveries/news/2008/09/dayintech_0919.

20. "Sir Timothy Berners-Lee OM, KBE, FRS, FREng, FRSA, Longer Bio," World Wide Web Consortium, accessed August 3, 2011, www.w3.org/People/Berners-Lee/Longer.html.

21. "Marc Andreesen," Internet Pioneers, accessed August 3, 2011, www.ibiblio.org/pioneers/andreesen.html.

22. Krishna Ankar and Susan A. Bouchard, *Enterprise Web 2.0 Fundamentals* (Indianapolis: Cisco Press, 2009), 35.

23. J. R. Raphael, "A Decade of Internet Superstars: Where Are They Now?" *PC World*, October 8, 2008, accessed August 3, 2011, www.pcworld.com/article/176647/jennifer_ringley_jennicam.html.

24. Editors of the Huffington Post, *The Huffington Post Complete Guide to Blogging* (New York: Simon & Schuster, 2008), 16.

25. "The History of Blogger," WebHostingReport.com, accessed August 3, 2011, www.webhostingreport.com/learn/blogger.html.

26. "User-Generated Content Draws Fans," eMarketer, February 3, 2009, accessed August 3, 2011, www.emarketer.com/Article.aspx?R=1006895.

27. "Wiki Wiki Web FAQ," Cunningham & Cunningham, Inc., last edited September 12, 2010, accessed August 3, 2010, c2.com/cgi/wiki?WikiWikiWebFaq.

28. Ward Cunningham, "Correspondence on the Etymology of Wiki," Cunningham & Cunningham, Inc., November 2003, accessed August 3, 2011, c2.com/doc/etymology.html.

29. "About History," Creative Commons, accessed August 3, 2011, creativecommons.org/about/history.

30. "Folksonomy Coinage and Definition," Vanderwal.net, February 2, 2007, accessed August 3, 2011, www.vanderwal.net/folksonomy.html.

31. Thomas Vander Wal, "Tagging in Your Web World," SlideShare, January 23, 2007, accessed August 3, 2011, www.slideshare.net/vanderwal/tagging-in-your-web-world.

32. Clay Shirky, "Ontology Is Overrated: Categories, Links, and Tags," Clay Shirky's Writings About the Internet, accessed August 3, 2011, www.shirky.com/writings/ontology_overrated.html.

33. Darcy DiNucci, "Fragmented Future," Print Magazine, April 1999, accessed October 25, 2011, darcyd.com/fragmented_future.pdf.

34. Tim O'Reilly, "What Is Web 2.0?" O'Reilly, September 30, 2005, accessed August 3, 2011, oreilly.com/web2/archive/what-is-web-20.html.

35. "About," Global Voices, updated November 11, 2010, accessed August 3, 2011, globalvoicesonline.org/about.

36. Danah M. Boyd and Nicole B. Ellison, "Social Network Sites: Definition, History, and Scholarship," *Journal of Computer-Mediated Communication* 13, 2007, accessed August 3, 2011, jcmc.indiana.edu/vol13/issue1/boyd.ellison.html.

37. "Facebook Statistics, Stats & Facts for 2011," Digital Buzz Blog, accessed August 3, 2011, www.digitalbuzzblog.com/facebook-statistics-stats-facts-2011.

38. Jeff Weiner, "100 Million Members and Counting," LinkedIn Blog, March 22, 2011, accessed August 3, 2011, blog.linkedin.com/2011/03/22/linkedin-100-million.

39. "Infographic: YouTube Statistics, Facts, and Figures," Digital Buzz Blog, May 19, 2010, accessed August 3, 2011, www.digitalbuzzblog.com/infographic-youtube-statistics-facts-figures.

40. Omar Gallaga, "Chatroulette: Risky, Revolting, Revealing, and Revolutionary?" All Tech Considered, National Public Radio (March 1, 2010), accessed August 3, 2011, www.npr.org/blogs/alltechconsidered/2010/03/chatroulette_risky_revolting_r.html.

41. See for example: John I. Todor, *Get With It! The Hands-On Guide to Using Web 2.0 in Your Business* (Los Angeles: Silverado Press, 2008); Sankar Krishna and Susan A. Bouchard, *Enterprise Web 2.0 Fundamentals* (Indianapolis: Cisco Systems, 2009).

42. Lev Grossman, "Time's Person of the Year: You," *Time* magazine, December 13, 2006, accessed August 3, 2011, www.time.com/time/magazine/article/0,9171,1569514,00.html.

43. Jon Pareles, "2006, Brought to You by You," *New York Times*, December 10, 2006, accessed August 3, 2011, www.nytimes.com/2006/12/10/arts/music/10pare.html.

44. Greg Gutfeld, "Mad About 'You,'" *American Spectator* 40 (February 2007): 39.

45. Kevin Kelley, "We Are the Web," *Wired* 13, no. 8, August 2005, accessed August 3, 2011, www.wired.com/wired/archive/13.08/tech.html.

46. Nicholas Carr, "The Amorality of Web 2.0," Rough Type, October 3, 2005, accessed August 3, 2011, www.roughtype.com/archives/2005/10/the_amorality_o.php.

47. Andrew Keen, *Cult of the Amateur* (New York: Doubleday, 2007), 65.

48. Toby Lichtig, "Intellectual Kleptomania," *New Statesman*, June 14, 2007, accessed August 3, 2011, www.newstatesman.com/books/2007/06/keen-culture-internet-amateur.

49. Larry Sanger, "Review: The Cult of the Amateur by Andrew Keen," *New Scientist*, no. 2612, July 14, 2007, accessed February 27, 2011, www.newscientist.com/article/mg19526121.700-review-the-cult-of-the-amateur-by-andrew-keen.html.

50. Carol Tenopir, "Web 2.0: Our Cultural Downfall?" *Library Journal* 132 (December 2007): 36.

51. Mark Hopkins, "The User-Generated Content Reality," Mashable, October 28, 2007, accessed August 3, 2011, mashable.com/2007/10/28/the-user-generated-content-reality.

52. Mark Wnek, "Bad Writing Syndrome Goes Viral," *Adweek* 49 (February 4, 2008): 20.

53. Sarah Davis and David Kiley, "The Debate Room: User-Generated Content Is Junk," Bloomberg Businessweek, January 25, 2008, accessed August 3, 2011, www.businessweek.com/debateroom/archives/2008/01/user-generated.html.

54. Shao Guosong, "Understanding the Appeal of User Generated Media: A Uses and Gratification Perspective," *Internet Research* 19 (2009): 11.

55. Ochoa and Duval, "Quantitative Analysis of User Generated Content on the Web," 1.

56. N'Gai Croal, "The Internet Is the New Sweatshop," *Newsweek*, July 7–14, 2008, accessed August 3, 2011, www.newsweek.com/id/143740.

57. Jeffrey R. Young, "Colleges Try Crowdsourcing Help Desks to Save Money," *Chronicle of Higher Education* 56 (November 6, 2009): A1, A16.

58. Jeff Howe, "The Rise of Crowdsourcing," *Wired* 14, no. 6, June 2006, accessed August 3, 2011, www.wired.com/wired/archive/14.06/crowds.html.

59. Dara Solomon, "The Pros and Cons of User-Generated Content," Junta42 Content Marketing Blog, November 25, 2009, accessed August 3, 2011, blog.junta42.com/content_marketing_blog/2009/11/pros-cons-user-generated-content.html.

60. "User Generated Content License," American Red Cross, accessed August 3, 2011, www.redcrossblood.org/user-generated-content-license.

61. "User generated content," Nike, accessed August 3, 2011, store.nike.com/emeastore/plugins/help/html/UserGeneratedContent_en.html.

62. Robert P. Latham, Carl C. Butzer, and Jeremy T. Brown, "Legal Implications of User Generated Content: YouTube, MySpace, Facebook," *Intellectual Property & Technology Law Journal* 20 (May 2008): 2.

63. Ibid., 3.

64. Greg Sandoval, "Courtroom Rumble for YouTube, Viacom?" CBS News, January 7, 2010, accessed August 3, 2011, cbsnews.com/stories/2010/01/07/tech/cnettech news/main6070063.shtml.

65. Rob Arcamona, "What the Viacom vs. YouTube Verdict Means for Copyright Law," MediaShift, July 2, 2010, accessed August 3, 2011, www.pbs.org/mediashift/2010/07/what-the-viacom-vs-youtube-verdict-means-for-copyright-law183.html.

66. "Am I Responsible for User-Generated Content?" Google AdSense Help, accessed August 3, 2011, www.google.com/adsense/support/bin/answer.py?hl=en&answer=115995.

67. Martin Samson, "*Fair Housing Council of San Fernando Valley, et al. v. Roommates.com LLC,*" Internet Library of Law and Court Decisions, accessed August 3, 2011, www.internetlibrary.com/cases/lib_case484.cfm.

68. Evan Brown, "No Personal Jurisdiction Over Australian Defendant in Flickr Right of Publicity Case," Internet Cases, January 22, 2009, accessed August 3, 2011, blog.internetcases.com/2009/01/22/no-personal-jurisdiction-over-australian-defendant-in-flickr-right-of-publicity-case.