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# Online Journalism



## Online Journalism

*Prashant Jaiwardhan,*  
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## Chapter-1

### Introduction to Online Journalism

Online journalism is defined as the reporting of facts when produced and distributed via the Internet.

An early leader in online journalism was The News & Observer in Raleigh, North Carolina. Steve Yelvington wrote on the Poynter Institute website about Nando, owned by The N&O, by saying "Nando evolved into the first serious, professional news site on the World Wide Web". It originated in the early 1990s as "NandO Land". Online news sources began to proliferate in the 1990s. Salon, founded in 1995, was an early leader of online-only reporting. In 2001 the American Journalism Review called Salon the Internet's "preeminent independent venue for journalism."

As of 2009, audiences for online journalism continue to grow. In 2008, for the first time, more Americans reported getting their national and international news from the internet, rather than newspapers. Young people aged 18 to 29 now primarily get their news via the Internet, according to a PEW Research Center report. Audiences to news sites continued to grow due to the launch of new news sites, continued investment in news online by conventional news organizations, and the continued growth in internet audiences overall. Sixty-five percent of youth now primarily access the news online.

Prior to 2008, the industry had hoped that publishing news online would prove lucrative enough to fund the costs of conventional newsgathering. In 2008, however, online advertising began to slow down, and little progress was made towards development of new business models. The Pew Project for Excellence in Journalism describes its 2008 report on the State of the News Media, its sixth, as its bleakest ever. Despite the uncertainty, online journalists report expanding newsrooms. They believe advertising is likely to be the best revenue model supporting the production of online news.

Many news organizations based in other media also distribute news online, but the amount they use of the new medium varies. Some news organizations use the Web exclusively or as a secondary outlet for their content. The Online News Association, founded in 1999, is the largest

organization representing online journalists, with more than 1,700 members whose principal livelihood involves gathering or producing news for digital presentation.

The Internet challenges traditional news organizations in several ways. Newspapers may lose classified advertising to websites, which are often targeted by interest instead of geography. These organizations are concerned about real and perceived loss of viewers and circulation to the Internet.

The Internet has also given rise to more participation by people who are not normally journalists, such as with Indy Media (Max Perez).

Bloggers write on web logs or blogs. Traditional journalists often do not consider bloggers to automatically be journalists. This has more to do with standards and professional practices than the medium. But, as of 2005, blogging has generally gained at least more attention and has led to some effects on mainstream journalism, such as exposing problems related to a television piece about President George W. Bush's National Guard Service.

Other significant tools of on-line journalism are Internet forums, discussion boards and chats, especially those representing the Internet version of official media. The widespread use of the Internet all over the world created a unique opportunity to create a meeting place for both sides in many conflicts, such as the Israeli-Palestinian conflict and the First and Second Chechen Wars. Often this gives a unique chance to find new, alternative solutions to the conflict, but often the Internet is turned into the battlefield by contradicting parties creating endless "online battles."

Internet radio and podcasts are other growing independent media based on the Internet.

One emerging problem with online journalism in the United States is that, in many states, individuals who publish only on the Web do not enjoy the same First Amendment rights as reporters who work for traditional print or broadcast media. As a result, unlike a newspaper, they are much more liable for such things as libel. In California, however, protection of anonymous blog sources was ruled to be the same for both kinds of journalism.

In Canada there are more ambiguities, as Canadian libel law permits suits to succeed even if no false statements of fact are involved, and even if matters of public controversy are being discussed. In British Columbia, as part of "a spate of lawsuits" against online news sites, according to legal columnist Michael Geist, several cases have put key issues in online

journalism up for rulings. Geist mentioned that Green Party of Canada financier Wayne Crookes filed a suit in which he alleged damages for an online news service that republished resignation letters from that party and let users summarize claims they contained. He had demanded access to all the anonymous sources confirming the insider information, which Geist believed would be extremely prejudicial to online journalism. The lawsuit, "Crookes versus open politics", attracted attention from the BBC and major newspapers, perhaps because of its humorous name. Crookes had also objected to satire published on the site, including use of the name "gang of Crookes" for his allies. Subsequently, Crookes sued Geist, expanding the circle of liability. Crookes also sued Google, Wikipedia, Yahoo, PB wiki, domain registrars and Green bloggers who he felt were associated with his political opponents. Crookes' attempt to enforce BC's plaintiff-friendly libel laws on California, Ontario and other jurisdictions led to an immediate backlash in bad publicity but the legal issues remain somewhat unresolved as of November 2009. Crookes lost four times on the grounds that he had not shown anyone in BC had actually read the materials on the minor websites, but this left the major question unresolved: How to deal with commentary deemed fair in one jurisdiction but actionable in another, and how to ensure that universal rights to free speech and reputation are balanced in a way that does not lead to radically different outcomes for two people who might for instance participate in a conversation on the Internet.

Non-democratic regimes that do not respect international human rights law present special challenges for online journalism:

- Persons reporting from those regimes or with relatives under those regimes may be intimidated, harassed, tortured or killed and the risk of their exposure generally rises if they become involved in a private dispute and are subjected to civil discovery, or if a plaintiff or police officer or government official pressures an international service provider to disclose their identity.
- If print and broadcast journalists are excluded, unverifiable reports from persons on the spot (as during the Iran election crisis of 2009) may be the only way to relay news at all - each individual incident may be unverifiable though statistically a much more representative sample of events might be gathered this way if enough citizens are participating in gathering the news.

- Court processes that do not explicitly respect the rights of fair comment on public issues, political expression in general, religious freedoms, the right to dissent government decisions or oppose power figures, could be imposed on persons who merely comment on a blog or wiki. If judgments can be enforced at a distance, this may require expensive legal responses or chill on comment while cases move through a remote court, with the proceedings possibly even being heard in a foreign language under rules the commentator never heard of before. If people from relatively free countries engage in conversations with those from oppressive countries, for instance on homosexuality, they may actually contribute to exposing and loss of human rights by their correspondents.
- The Internet also offers options such as personalized news feeds and aggregators, which compile news from different websites into one site. One of the most popular news aggregators is Google News. Others include Topix.net, and TheFreeLibrary.com.
- But, some people see too much personalization as detrimental. For example, some fear that people will have narrower exposure to news, seeking out only those commentators who already agree with them.
- As of March 2005, Wiki news rewrites articles from other news organizations. Original reporting remains a challenge on the Internet as the burdens of verification and legal risks (especially from plaintiff-friendly jurisdictions like BC) remain high in the absence of any net-wide approach to defamation.

## Chapter 2

### Open Source Journalism

Open-source journalism, a close cousin to citizen journalism or participatory journalism, is a term coined in the title of a 1999 article by Andrew Leonard of Salon.com. Although the term was not actually used in the body text of Leonard's article, the headline encapsulated a collaboration between users of the internet technology blog Slashdot and a writer for Jane's Intelligence Review. The writer, Johan J. Ingles-le Nobel, had solicited feedback on a story about cyber terrorism from Slashdot readers, and then re-wrote his story based on that feedback and compensated the Slashdot writers whose information and words he used.

This early usage of the phrase clearly implied the paid use, by a mainstream journalist, of copyright-protected posts made in a public online forum. It thus referred to the standard journalistic techniques of news gathering and fact checking, and reflected a similar term that was in use from 1992 in military intelligence circles, open source intelligence.

The meaning of the term has since changed and broadened, and it is now commonly used to describe forms of innovative publishing of online journalism, rather than the sourcing of news stories by a professional journalist.

The term open-source journalism is often used to describe a spectrum on online publications: from various forms of semi-participatory online community journalism (as exemplified by projects such as the copyright newspaper North West Voice), through to genuine open-source news publications.

A relatively new development is the use of convergent polls, allowing editorials and opinions to be submitted and voted on. Overtime, the poll converges on the most broadly accepted editorials and opinions. Examples of this are Opinion republic.com and Digg.

At first sight, it would appear to many that blogs fit within the current meaning of open-source journalism. Yet the term's use of open source clearly currently implies the meaning as given to it by the open-source software movement; where the source code of programs is published openly

to allow anyone to locate and fix mistakes or add new functions. Anyone may also freely take and re-use that source code to create new works, within set license parameters.

Given certain legal traditions of copyright, blogs may not be open source in the sense that one is prohibited from taking the blogger's words or visitor comments and re-using them in another form without breaching the author's copyright or making payment. However, many blogs draw on such material through quotations (often with links to the original material), and follow guidelines more comparable to research than media production.

Creative Commons is a licensing arrangement that is useful as a legal workaround for such an inherent structural dilemma intrinsic to blogging, and its fruition is manifest in the common practices of referencing another published article, image or piece of information via hyperlink. Insofar as blog works can explicitly inform readers and other participants of the "openness" of their text via Creative Commons, they not only publish openly, but allow anyone to locate, critique, summarize etc. their works.

Open publishing is a process of creating news or other content that is transparent to the readers. They can contribute a story and see it instantly appear in the pool of stories publicly available. Those stories are filtered as little as possible to help the readers find the stories they want. Readers can see editorial decisions being made by others. They can see how to get involved and help make editorial decisions. If they can think of a better way for the software to help shape editorial decisions, they can copy the software because it is free and change it and start their own site. If they want to redistribute the news, they can, preferably on an open publishing site.

Internet sites run on open publishing software allow anyone with Internet access to visit the site and upload content directly without having to penetrate the filters of traditional media. Several fundamental principles tend to inform the organizations and sites dedicated to open publishing, though they do so to varying degrees. These principles include non-hierarchy, public participation, minimal editorial control, and transparency.

Open publishing idea embedded the same concept, although didn't mention Eric S. Raymond's major insight. In Open Publishing problematic content is shallow. Given a large enough audience, peers, readers and commentators, almost all problematic content will be quickly



noticed highlighted and fixed. Arnison's Law: "Given enough eyeballs, problematic content is shallow."

It should be distinguished from open access publishing, the publishing of material organized in such a way that there is no financial or other barrier to the user. (All or almost all Open publishing is in fact also open access.)

## Chapter 3

### Civic Journalism

Civic journalism (also known as public journalism) is the idea of integrating journalism into the democratic process. The media not only informs the public, but it also works towards engaging citizens and creating public debate. The civic journalism movement is, according to professor David K. Perry of the University of Alabama, an attempt to abandon the notion that journalists and their audiences are spectators in political and social processes. In its place, the civic journalism movement seeks to treat readers and community members as participants. With a small but committed following, civic journalism has become as much of a philosophy as it is a practice.

In the 1920s, before the notion of public journalism was developed, there was the famous debate between Walter Lippmann and John Dewey over the role of journalism in a democracy. Lippmann viewed the role of the journalist to be simply recording what policy makers say and then providing that information to the public. In opposition to this, Dewey defined the journalist's role as being more engaged with the public and critically examining information given by the government. He thought journalists should weigh the consequences of the policies being enacted. Dewey believed conversation, debate, and dialogue were what democracy was all about and that journalism has an important piece of that conversation.

Decades later Dewey's argument was further explored by Jay Rosen and Davis Merritt, who were looking at the importance of the media in the democratic process. In 1993, Rosen and Merritt formed the concept of public journalism. In their joint "manifesto" on public journalism that was published in 1994, Rosen explains that "public journalism tries to place the journalist within the political community as a responsible member with a full stake in public life. But it does not deny the important difference between journalists and other actors including political leaders, interest groups and citizens themselves...In a word, public journalists want public life to work. In order to make it work they are willing to declare an end to their neutrality on certain questions – for example: whether a community comes to grips with its problems, whether political earns the attention it claims.”

According to the now dormant Pew Center for Civic Journalism, the practice "is both a philosophy and a set of values supported by some evolving techniques to reflect both of those in journalism. At its heart is a belief that journalism has an obligation to public life – an obligation that goes beyond just telling the news or unloading lots of facts. The way we do our journalism affects the way public life goes." Leading organizations in the field include the now dormant Pew Center, the Kettering Foundation, the Civic and Citizen Journalism Interest Group in the Association for Education in Journalism and Mass Communication (AEJMC) and the Public Journalism Network.

Although they developed the concept of public journalism together, both Rosen and Merritt have differing viewpoints on what exactly public journalism is.

Rosen defines public journalism as

a way of thinking about the business of the craft that calls on journalists to (1) address people as citizens, potential participants in public affairs, rather than victims or spectators; (2) help the political community act upon, rather than just learn about, its problems; (3) improve the climate of public discussion, rather than simply watch it deteriorate; and (4) help make public life go well, so that it earns its claim on our attention and (5) speak honestly about its civic values, its preferred view of politics, its role as a public actor.

Rosen explains five ways to understand public journalism:

- As an argument, a way of thinking about what journalist should be doing, given their own predicament and general state of public life.
- As an experiment, a way of breaking out of established routines and making a different kind of contribution to public life.
- As a movement involving practicing journalists, former journalists who want to improve their craft, academics and researchers with ideas to lend and studies that might help, foundations and think tanks that gave financial assistance and sanctuary to the movement, and other like minded folk who wanted to contribute to the rising spirit of reform.
- As a debate with often heated conversation within the press and with others outside it about the proper role of the press.
- As an adventure, an open-ended and experimental quest for another kind of press.

Merritt, on the other hand, explains that it is the responsibility of the journalist to act as a fair-minded participant in the public arena. His famous analogy of the journalist having the same role as a sports referee best depicts this idea:

The function of a third party – a referee or umpire or judge – in sports competition is to facilitate the deciding of the outcome. Ideally, the official impinges on the game; if things go according to the rules, he or she is neither seen nor heard. Yet the presence of a fair-minded participant is necessary in order for an equitable decision to be reached. What he or she brings to the arena is knowledge of the agreed-upon rules, the willingness to contribute that knowledge, and authority – that is, the right to be attended to. The referee's role is to make sure that the process works as the contestants agreed it should. In order to maintain that authority, that right to be heard, the referee must exhibit no interest in the final score other than it is arrived at under the rules. But, both for referees and contestants, that is the ultimate interest. It is important to remember that the referee doesn't make the rules. Those are agreed on by the contestants – in this case, the democratic public. The referee, rather, is the fair-minded caretaker. What journalist should bring to the arena of public life is knowledge of the rules – how the public has decided a democracy should work and the ability and the willingness to provide relevant information and a place for that information to be discussed and turned into democratic consent. Like the referee, to maintain our authority – the right to be heard – we must exhibit no partisan interest in the specific outcome other than it is arrived at under the democratic process.

In a National Public Radio interview Merritt summed up civic journalism as "a set of values about the craft that recognizes and acts upon the interdependence between journalism and democracy. It values the concerns of citizens over the needs of the media and political actors, and conceives of citizens as stakeholders in the democratic process rather than as merely victims, spectators or inevitable adversaries. As inherent participants in the process, we should do our work in ways that aid in the resolution of public problems by fostering broad citizen engagement."

According to *The Roots of Civic Journalism* by David K. Perry, the practitioners of civic journalism – who saw the movement's most drastic growth in the early 1990s – have always adhered to the basic tenets of public journalism:

- "Attempting to situate newspapers and journalists as active participants in community life, rather than as detached spectators."
- "Making a newspaper a forum for discussion of community issues."
- "Favoring the issues, events and problems important to ordinary people."
- "Considering public opinion through the process of discussion and debate among members of a community."
- "Attempting to use journalism to enhance social capital."

Usually formulated by a few devoted members in a newsroom, civic journalism projects are typically associated with the opinion section of papers. These projects are usually found in the form of organized town meetings and adult education programs. The Public Journalism Network explains that "journalism and democracy work best when news, information and ideas flow freely; when news portrays the full range and variety of life and culture of all communities; when public deliberation is encouraged and amplified; and when news helps people function as political actors and not just as political consumers."

### **Key Proponents of Civic Journalism**

- David Mathews, president of the Kettering Foundation and a supporter of civic journalism states that, "when people are in the business of making choices, they are going to look for information to inform their choices." Mathews affirms that civic journalism is aimed at aligning journalistic practices with the ways that citizens form publics, in turn creating a more efficient and reciprocal way of communicating with readers.
- Jay Rosen, a journalism professor at New York University, is one of the earliest proponents of civic journalism. From 1998–99, Rosen wrote and spoke frequently about civic journalism. He published his book, *What Are Journalists For?* in 1999 about the early rise of the civic journalism movement. Rosen writes a popular blog called PressThink.
- W. Davis "Buzz" Merritt Jr., a former editor of *The Wichita Eagle*, is another pioneer of civic journalism. Merritt is a key advocate for news media reforms, and published his

book *Public Journalism and Public Life* in 1995. Merritt began exploring civic journalism after acknowledging loss of public trust in traditional journalistic values. Merritt feels that journalists need a clear understanding and appreciation for the interdependence of journalism and democracy.

- James W. Carey, a media critic and a journalism instructor at Columbia University, was an advocate for the public journalism movement. He saw it as a "reawakening of an antecedent tradition of journalism and politics, one that emphasizes local democracy, the community of locale, and citizenship as against the distant forces that would overwhelm it...public journalism performs a great service in reminding us what is worth protecting."

## Chapter 4

### Citizen Journalism

Citizen Journalism is also known as "public", "participatory", "democratic"), "guerrilla" or "street" journalism is based upon public citizens "playing an active role in the process of collecting, reporting, analyzing, and disseminating news and information." Similarly, Courtney C. Radsch defines citizen journalism "as an alternative and activist form of newsgathering and reporting that functions outside mainstream media institutions, often as a repose to shortcoming in the professional journalistic field, that uses similar journalistic practices but is driven by different objectives and ideals and relies on alternative sources of legitimacy than traditional or mainstream journalism." Jay Rosen proposes a simpler definition: "When the people formerly known as the audience employs the press tools they have in their possession to inform one another."

Citizen journalism should not be confused with community journalism or civic journalism, both of which are practiced by professional journalists. Collaborative journalism is also a separate concept and is the practice of professional and non-professional journalists working together. Citizen journalism is a specific form of both citizen media and user generated content. By juxtaposing the term "citizen," with its attendant qualities of civic mindedness and social responsibility, with that of "journalism," which refers to a particular profession, Courtney C. Radsch argues that this term best describes this particular form of online and digital journalism conducted by amateurs, because it underscores the link between the practice of journalism and its relation to the political and public sphere.

New media technology, such as social net working and media-sharing websites, in addition to the increasing prevalence of cellular telephones, have made citizen journalism more accessible to people worldwide. Due to the availability of technology, citizens often can report breaking news more quickly than traditional media reporters. Notable examples of citizen journalism reporting from major world events are, the Arab Spring, the Occupy Wall Street movement, the 2013 protests in Turkey, and the 2010 Haiti earthquake.

Without addressing the failures of professional journalism that often have led to the rise of citizen journalism, critics of the phenomenon, including professional journalists, claim that citizen journalism is unregulated, too subjective, amateurish, and haphazard in quality and coverage.

Citizen journalism, as a form of alternative media, presents a “radical challenge to the professionalized and institutionalized practices of the mainstream media”

According to Terry Flew, there have been three elements critical to the rise of citizen journalism: open publishing, collaborative editing, and distributed content .Mark Glaser, a freelance journalist who frequently writes on new media issues, said in 2006

The idea behind citizen journalism is that people without professional journalism training can use the tools of modern technology and the global distribution of the Internet to create, augment or fact-check media on their own or in collaboration with others. For example, you might write about a city council meeting on your blog or in an online forum. Or you could fact-check a newspaper article from the mainstream media and point out factual errors or bias on your blog. Or you might snap a digital photo of a newsworthy event happening in your town and post it online. Or you might videotape a similar event and post it on a site such as YouTube.

The accessibility of online media has also enhanced the interest for journalism among youth and many websites, like 'Far and Wide 'a publication focusing on travel and international culture as well as World Weekly a news blog covering a range of topics from world politics to science, are founded and run by students.

In What is Participatory Journalism? J. D. Lasica classifies media for citizen journalism into the following types:

1. Audience participation (such as user comments attached to news stories, personal blogs, photographs or video footage captured from personal mobile cameras, or local news written by residents of a community)
2. Independent news and information Websites (Consumer Reports, the Drudge Report)
3. Full-fledged participatory news sites (one:convo, NowPublic, OhmyNews, DigitalJournal.com, GroundReport, fairobserver )
4. Collaborative and contributory media sites (Slashdot, Kuro5hin, News vine)



5. Other kinds of "thin media" (mailing lists, email newsletters)
6. Personal broadcasting sites (video broadcast sites such as Ken Radio)

The literature of citizen, alternative, and participatory journalism is most often situated in a democratic context and theorized as a response to corporate news media dominated by an economic logic. Some scholars have sought to extend the study of citizen journalism beyond the Western, developed world, including Sylvia Moretzsohn, Courtney C. Radsch, and Clemencia Rodríguez. Radsch, for example, wrote that "Throughout the Arab world, citizen journalists have emerged as the vanguard of new social movements dedicated to promoting human rights and democratic values."

"Citizen journalism" versus "grassroots media"

Some criticize the formulation of the term "citizen journalism" to describe this concept, because the word "citizen" has a conterminous relation to the nation-state. The fact that many millions of people are considered stateless and often, are without citizenship (such as refugees or immigrants without papers) limits the concept to those recognized only by governments. Additionally, the global nature of many participatory media initiatives, such as the Independent Media Center, makes talking of journalism in relation to a particular nation-state largely redundant as its production and dissemination do not recognize national boundaries. Some additional names given to the concept based on this analysis are, "grassroots media," "people's media," or "participatory media."

### **Relationship to local journalism**

Some major news reporting agencies, threatened by the speed with which news is reported and delivered by citizen journalism, have launched campaigns to bring in readers and financial support. For example, Bill Johnson, president of Embarcadero Media, which publishes several northern California newspapers, issued an online statement asking readers to subscribe to local newspapers in order to keep them financially solvent. Johnson put special emphasis on the critical role played by local newspapers, which, he argues, "reflect the values of the residents and businesses, challenge assumptions, and shine a light on our imperfections and aspirations."

## History

The idea that average citizens can engage in the act of journalism has a long history in the United States. The modern citizen journalist movement emerged after journalists themselves began to question the predictability of their coverage of such events as the 1988 U.S. presidential election. Those journalists became part of the public, or civic, journalism movement, a countermeasure against the eroding trust in the news media and widespread public disillusionment with politics and civic affairs.

Initially, discussions of public journalism focused on promoting journalism that was "for the people" by changing the way professional reporters did their work. According to Leonard Witt, however, early public journalism efforts were "often part of 'special projects' that were expensive, time-consuming, and episodic. Too often these projects dealt with an issue and moved on. Professional journalists were driving the discussion. They would have the goal of doing a story on welfare-to-work (or the environment, or traffic problems, or the economy), and then they would recruit a cross-section of citizens and chronicle their points of view. Since not all reporters and editors bought into this form of public journalism, and some outright opposed it, reaching out to the people from the newsroom was never an easy task." By 2003, in fact, the movement seemed to be petering out, with the Pew Center for Civic Journalism closing its doors.

With today's technology the citizen journalist movement has found new life as the average person can capture news and distribute it globally. As Yochai Benkler has noted, "the capacity to make meaning – to encode and decode humanly meaningful statements – and the capacity to communicate one's meaning around the world, are held by, or readily available to, at least many hundreds of millions of users around the globe." Professor Mary-Rose Papandrea, a constitutional law professor at Boston College, notes in her article, *Citizen Journalism and the Reporter's Privilege*, that:

In many ways, the definition of "journalist" has now come full circle. When the First Amendment of the U.S. Constitution was adopted, "freedom of the press" referred quite literally to the freedom to publish using a printing press, rather than the freedom of organized entities engaged in the publishing business. The printers of 1775 did not exclusively publish newspapers; instead, in order to survive financially they dedicated most of their efforts printing materials for paying clients. The newspapers and pamphlets

of the American Revolutionary era were predominantly partisan and became even more so through the turn of the century. They engaged in little news gathering and instead were predominantly vehicles for opinion.

The passage of the term “journalism” into common usage in the 1830s occurred at roughly the same time that newspapers, using high speed rotary steam presses, began mass circulation throughout the eastern United States. Using the printing press, newspapers could distribute exact copies to large numbers of readers at a low incremental cost. In addition, the rapidly increasing demand for advertising for brand-name products fueled the creation of publications subsidized, in large part, by advertising revenue. It was not until the late nineteenth century that the concept of the “press” metamorphized into a description of individuals and companies engaged in an often-competitive commercial media enterprise.

### **Citizen journalism & World Trade Organization WTO**

In 1999, activists in Seattle created a response to the WTO meeting being held there. These activists understood the only way they could get into the corporate media was by blocking the streets. Then they realized that a scant 60 seconds of coverage would show them being carted off by the police, but without any context to explain why they were protesting. They knew they had to create an alternative media model.

Since then, the Indymedia movement has experienced exponential growth, and IMCs have been created in more than 200 cities all over the world.

Simultaneously, journalism "by the people" began to flourish, enabled by emerging internet and networking technologies, such as weblogs, chat rooms, message boards, wikis, and mobile computing. A relatively new development is the use of convergent polls, allowing editorials and opinions to be submitted and voted on. Over time, the poll converges on the most broadly accepted editorials and opinions. In South Korea, OhmyNews became popular and commercially successful with the motto, "Every Citizen is a Reporter." Founded by Oh Yeon-ho on February 22, 2000, it has a staff of 40 or more traditional reporters and editors who write about 20% of its content, with the rest coming from other freelance contributors who mostly are ordinary citizens. OhmyNews

now has an estimated 50,000 contributors, and has been credited with transforming South Korea's conservative political environment.

In 2000, The Raven launched a Web television station aimed at participatory journalism, reporting on events in the Daytona Beach area. In 2001, themeparkinsider.com became the first online publication to win a major journalism award for a feature that was reported and written entirely by readers, earning an Online Journalism Award from the Online News Association and Columbia Graduate School of Journalism for its "Accident Watch" section, where readers tracked injury accidents at theme parks and shared accident prevention tips.

During the 2004 U.S. presidential election, both the Democratic and Republican parties issued press credentials to citizen bloggers covering the convention, marking a new level of influence and credibility for nontraditional journalists. Some bloggers also began "watch dogging" the work of conventional journalists, monitoring their work for biases and inaccuracy.

A recent trend in citizen journalism has been the emergence of what blogger Jeff Jarvis terms hyper local journalism, as online news sites invite contributions from local residents of their subscription areas, who often report on topics that conventional newspapers tend to ignore. "We are the traditional journalism model turned upside down," explains Mary Lou Fulton, the publisher of the Northwest Voice in Bakersfield, California. "Instead of being the gatekeeper, telling people that what's important to them 'isn't news', we're just opening up the gates and letting people come on in. We are a better community newspaper for having thousands of readers who serve as the eyes and ears for the Voice, rather than having everything filtered through the views of a small group of reporters and editors."

## Chapter 5

### Collaborative Writing

The term collaborative writing refers to projects where written works are created by multiple people together (collaboratively) rather than individually. Some projects are overseen by an editor or editorial team, but many grow without any oversight. Collaborative writing is also an approach for teaching novice authors to write.

In a true collaborative environment, each contributor has an almost equal ability to add, edit, and remove text. The writing process becomes a recursive task, where each change prompts others to make more changes. It is easier to do if the group has a specific end goal in mind and harder if a goal is absent or vague.

Using collaborative writing tools can provide substantial advantages to projects ranging from increased user commitment to easier, more effective and efficient work processes.

It is often the case that when users can directly contribute to an effort and feel that they've made a difference, they become more involved with and attached to the outcome of the project. The users then feel more comfortable contributing time, effort, and personal pride into the final product, resulting in a better final outcome.

In addition, collaborative writing tools have made it easier to design better work processes. These tools provide ways to monitor what users are contributing and when they contribute so managers can quickly verify that assigned work is being completed. Since these tools typically provide revision tracking, it has also made data sharing simpler. Users won't have to keep track of what version is the current working revision since the software has automated that.

Furthermore, because this software typically provides ways for users to chat in real time, projects can be completed faster because users don't have to wait for other users to respond by asynchronous means like email.

Others advantage is that since this software makes it easy for users to contribute from anywhere in the world, projects can benefit from the inclusion of perspectives from people all around the world.

Collaborative writing has been the subject of academic research and business for over two decades. A number of authors have written on the subject, and each have slightly different views on the strategies for collaborative writing.

According to Lowry et al., there are five collaborative writing strategies:

- Single-author writing occurs when one team member writes as a representative for the entire team. Single-author writing usually occurs when the writing task is simple.
- Sequential single writing. In sequential single-author writing, one group member writes at a time. Each group member is assigned a portion of the document, writes his or her portion and then passes the document onto the next group member.
- Parallel writing is the type of collaborative writing that occurs when a group divides the assignment or document into separate parts and all members work on their assigned part at the same time. There are two types of parallel writing: horizontal division parallel writing occurs when group members divide the task into sections, each member being responsible for the development of his or her assigned section; stratified division parallel writing occurs when group members divide responsibility of the creation of the product by assigning different members different roles. Some examples of roles that a member could be assigned are: author, editor, facilitator, or team leader.
- Reactive writing occurs when team members collaborate synchronously to develop their product. Team members react to and adjust each other's contributions as they are made.
- Mixed mode. This term describes a form of writing that mixes two or more of the collaborative writing strategies described above.

Onrubia and Engel also proposed five main strategies for collaborative elaboration of written products:

- Parallel construction—'cut and paste'. Each group member contributes with a different part of the completed task and the final document is constructed through a juxtapositioning of these different parts without the contribution of other co-authors. "Divide and conquer"

- Parallel construction—‘puzzle’. Each group member contributes with an initial document with the entirely or partially completed task, and the final document is constructed through the juxtapositioning of small extracted parts of the initial contributions of other coauthors.
- Sequential summative construction. One group member presents a document that constitutes an initial, partial or complete, proposal for the task resolution, and the rest of the participants successively add their contributions to this initial document, without modifying what has been previously written, hence, systematically accepting what is added by other co-authors.
- Sequential integrating construction. One group member presents a document that constitutes an initial, partial or complete task proposal, and the other group members successively contribute to this initial document, proposing justified modifications or discussing whether they agree with what has been previously written or not.
- Integrating construction. The writing of the document is based on synchronic discussion through the chat, with repeated revisions, where all group members react to the comments, the changes and the additions made by other participants.

Ritchie and Rigano described three types of co-authoring used in the academic setting:

- Turn writing. In this form of writing, which is more cooperative than collaborative, authors contribute different sections of a text which are then merged and harmonized by a lead author.
- Lead writing. One person drafts the text, which is amended by the others.
- Writing together side-by-side. A text is composed by two or more persons who think aloud together, negotiating and refining the content. One of the authors serves as scribe and possibly also as "gatekeeper of text composition".

There are several of degrees of collaboration in authoring. At one end of the range is a single author who through discussion with and review by colleagues produces a document. The other end of the spectrum is a group of writers who jointly author a document. The article by Lowry et al. identified five coordination strategies for group writing: single-author writing, sequential single writing, parallel writing, reactive writing and mixed mode. Each strategy has inherent advantages and disadvantages. For each methodology, the key issue is how the work is divided.

Based on the results of the study conducted by Ede and Lunsford, there are seven organizational patterns for collaborative authoring:

1. The team plans and outlines the task, each writer prepares his or her part, and the group compiles the individual parts and revises the whole document as needed;
2. The team plans and outlines the writing task, one member prepares a draft, and the team edits and revises the draft;
3. One member of the team plans and writes a draft, then the group revises the draft;
4. One person plans and writes the draft, then one or more members revise the draft without consulting the original authors;
5. The group plans and writes the draft, one or more members revise the draft without consulting the original authors;
6. One person assigns the tasks, each member completes the individual task, and one person compiles and revises the document;
7. One dictates, another transcribes and edits.

Results from the study indicated that the percentage of writing groups that use these methods often or very often ranges from 3% (method 5) to 31%. Ede and Lunsford also examined the level of satisfaction of authors participating in the group writing process, finding that satisfaction is influenced by eight items:

1. The degree to which goals are articulated and shared;
  2. The degree of openness and mutual respect;
  3. The degree of control the writers have over the text;
  4. The degree to which writers can respond to others who modify the text;
  5. The way in which credit (directly or indirectly) is acknowledged;
  6. The presence of an agreed upon procedure for managing conflicts and resolving disputes;
  7. The number and types of (bureaucratic) constraints imposed on the authors (e.g. deadlines, technical-legal requirements); and
  8. The status of the project within the organization.
9. Collaborative writing is used by educators to teach novice authors, of all ages and educational levels, to write.



10. A collaborative approach to demonstrate the basics of writing to children was developed in the 1980s and 1990s for use in early literacy programs. In what is called shared writing, a teacher acts as the scribe while children think aloud each sentence; this allows them to focus on generating ideas without the burden of writing. As the children become familiar with the writing process, they pass to interactive writing where they write under the guidance of the teacher.
11. More recently, shared and interactive writing approaches have been applied in adult literacy programs, doctoral research writing groups<sup>[6]</sup> and academic co-authoring, especially when participants differ in status or experience (e.g. professors and students). It is also used as a didactic form of developmental editing in support of non-native English speaking scientists who need to write in English but at the same time are novice authors (in any language). In such cases, a writing mentor (e.g. a teacher of academic writing or an authors' editor) uses guided discussions (thinking aloud) to help the researchers express their ideas and organize them according to the research paper genre; the goal is to quickly train such novice researcher-authors to become independent writers.
12. In 2013 Gartner identified Collaborative document authoring tools as at the coming towards peak of its hype cycle with its best market 5-10 years ahead. Gartner has identified this in several of their other hype cycles too. One of the tools that Gartner has recommended in several of their reports is Xaitporter, also naming them a cool vendor in 2013.

### **Collaborative Editing**

Collaborative editing is the practice of groups producing works together through individual contributions. Effective choices in group awareness, participation, and coordination are critical to successful collaborative writing outcomes.

Collaborative writing is writing done by more than one person; they may discuss what they are going to write before they start, and discuss what they have written after they finish each draft they write. The writing might be organized by dividing the writing into sub-tasks assigned to each group member, with the first part of the tasks done before the next parts, or they might work together on each task. The writing is planned, written, and revised, and more than one person is

involved in at least one of those steps. Usually, discussions about the document's structure and context involve the entire group.

Most usually it is applied to textual documents or programmatic source code. Such asynchronous (non-simultaneous) contributions are very efficient in time, as group members need not assemble in order to work together. Generally, managing such work requires software; the most common tools for editing documents are wikis, and those for programming, version control systems. Most word processors are also capable of recording changes; this allows editors to work on the same document while automatically clearly labeling who contributed what changes. New writing environments such as Google Docs provide collaborative writing/editing functionalities with revision control, synchronous/asynchronous editing.

Wikipedia is an example of a collaborative editing project on a large scale, which can be both good and bad, because of the large contributions by the public, Wikipedia has one of the widest ranges of material in the world. Unfortunately, this also leads to online 'graffiti', in which members of the public can submit incorrect information or random rubbish. Collaborative writing can lead to projects that are richer and more complex than those produced by individuals. Many learning communities include one or more collaborative assignments. However, writing with others also makes the writing task more complex. There is increasing amount of research literature investigating how collaborative writing can improve learning experiences.

Correct access management systems can prevent duplicated information. Access management systems require access to a server, often online. Collaboration can be more difficult online due to issues such as time zones.

## **Collaborative Fiction**

Collaborative fiction is a form of writing by a group of authors who share creative control of a story.

Collaborative fiction can occur for commercial gain, as part of education, or recreationally - many collaboratively written works have been the subject of a large degree of academic research.

Traditional fiction writers and writing circles have experimented in creating group stories, such as Robert Asprin's *Thieves World* and *Myth Adventures* - such approaches date back at least as far as *The Floating Admiral* in 1931. There are many highly regarded collaborations, but also some collaborative work produced as spoofs or hoaxes such as *Naked Came the Stranger*, which was allegedly written to illustrate the point that popular American literary culture had become mindlessly vulgar. Collaborative writing can greatly increase motivation and speed of production for authors. Debbie Dadey and Marcia Jones are quoted as saying that books in the *Bailey School Kids* series take between "two weeks to two years to write". However, the process can also be slow and methodical: of collaborating with the novelist Edwin O'Connor, Edmund Wilson wrote "In writing alternate chapters with Ed, I very soon ran into difficulties. He would not always accept my cues of my methods, and I found my narrative blocked. I suspected that this was deliberate and that we were playing a game of chess, and this suspicion has been corroborated by Mrs. O'Connor's telling me that, in sending back Chapter 4, Ed had said to her with satisfaction, "Well, I guess I've got him now". Collaborative authors commonly publish under a joint pseudonym, such as Judith Michael, Lewis Padgett or Grant Naylor, particularly if they intend to only write as part of a collaboration, or if their other work is in a significantly different style than their collaborative work.

The disadvantages of the collaborative writing process can include problems with series or sequels to successful books, if one partner has other commitments or is bored with the project, then losses, delays and pressure on the relationship may occur. The Association of Authors' Representatives recommends that "a collaboration agreement must deal with termination of the collaboration: How the collaborators can part ways, who keeps the money, who keeps the rights to the material".

Moreover, there can be legal complications if, for example, two authors are under contract to write other books individually for different publishers - if there is any overlap on the types of books then the contractual responsibilities need to be thoroughly examined to avoid copyright problems.

A collaborative author may focus on a specific protagonist or character in the narrative thread, and then pass the story to another writer for further additions or a change in focus to a different protagonist. Alternatively, authors might write the text for their own particular subplot within an

overall narrative, in which case one author may have the responsibility of integrating the story as a whole.

The methods used by commercial collaborative writers vary tremendously. When beginning writing the short story 'the toy mill' Karl Schroeder and David Nickle began by writing alternating sentences, whereas when English authors Terry Pratchett and Neil Gaiman wrote Good Omens they largely wrote separate plotlines and then collaborated much more heavily when revising the manuscript.

The collaboration may be very limited indeed, when John Green and David Levithan wrote Will Grayson, Will Grayson the only plot point they decided on was that two characters would meet at some point in the novel and that their meeting would have a tremendous effect on their lives. After this decision, they separately wrote the first three chapters for their half and then shared them with each other. After sharing, they then "knew immediately it was going to work", as stated by Levithan.

### **Collaborative Learning**

Collaborative learning is a situation in which two or more people learn or attempt to learn something together. Unlike individual learning, people engaged in collaborative learning capitalize on one another's resources and skills (asking one another for information, evaluating one another's ideas, monitoring one another's work, etc.). More specifically, collaborative learning is based on the model that knowledge can be created within a population where members actively interact by sharing experiences and take on asymmetry roles. Put differently, collaborative learning refers to methodologies and environments in which learners engage in a common task where each individual depends on and is accountable to each other. These include both face-to-face conversations and computer discussions (online forums, chat rooms, etc.). Methods for examining collaborative learning processes include conversation analysis and statistical discourse analysis.

Collaborative learning is heavily rooted in Vygotsky's views that there exists an inherent social nature of learning which is shown through his theory of zone of proximal development. Often, collaborative learning is used as an umbrella term for a variety of approaches in education that involve joint intellectual effort by students or students and teachers. Thus, collaborative learning is commonly illustrated when groups of students work together to search for understanding,

meaning, or solutions or to create an artifact or product of their learning. Further, collaborative learning redefines traditional student-teacher relationship in the classroom which results in controversy over whether this paradigm is more beneficial than harmful. Collaborative learning activities can include collaborative writing, group projects, joint problem solving, debates, study teams, and other activities. The approach is closely related to cooperative learning.

Alternatively, collaborative learning occurs when individuals are actively engaged in a community in which learning takes place through explicit or implicit collaborative efforts. Collaborative learning has often been portrayed as solely a cognitive process by which adults participate as facilitators of knowledge and children as receivers. However, Indigenous communities of the Americas illustrate that collaborative learning occurs because individual participation in learning occurs on a horizontal plane where children and adults are equal. Thus collaborative learning also occurs when children and adults in engage play, work, and other activities together.

### **Examples of Collaborative Learning**

- Collaborative Networked Learning According to Findley (1987) "Collaborative Networked Learning (CNL) is that learning which occurs via electronic dialogue between self-directed co-learners and learners and experts. Learners share a common purpose, depend upon each other and are accountable to each other for their success. CNL occurs in interactive groups in which participants actively communicate and negotiation meaning with one another within a contextual framework which may be facilitated by an online coach, mentor or group leader."
- Computer-supported collaborative learning (CSCL) is a relatively new educational paradigm within collaborative learning which uses technology in a learning environment to help mediate and support group interactions in a collaborative learning context. CSCL systems use technology to control and monitor interactions, to regulate tasks, rules, and roles, and to mediate the acquisition of new knowledge.
- Learning Management System In this context, collaborative learning refers to a collection of tools which learners can use to assist, or be assisted by others. Such tools include Virtual Classrooms (i.e. geographically distributed classrooms linked by audio-visual network connections), chat, discussion threads, application sharing (e.g. a colleague projects

spreadsheet on another colleague's screen across a network link for the purpose of collaboration), among many others.

- Collaborative Learning Development Enables developers of learning systems to work as a network. Specifically relevant to e-learning where developers can share and build knowledge into courses in a collaborative environment. Knowledge of a single subject can be pulled together from remote locations using software systems.
- Collaborative Learning in Virtual Worlds Virtual Worlds by their nature provide an excellent opportunity for collaborative learning. At first learning in virtual worlds was restricted to classroom meetings and lectures, similar to their counterparts in real life. Now collaborative learning is evolving as companies starting to take advantage of unique features offered by virtual world spaces - such as ability to record and map the flow of ideas, use 3D models and virtual worlds mind mapping tools.
- Collaborative learning in thesis circles in higher education is another example of people learning together. In a thesis circle, a number of students work together with at least one professor or lecturer, to collaboratively coach and supervise individual work on final (e.g. undergraduate or MSc) projects. Students switch frequently between their role as co-supervisor of other students and their own thesis work (incl. receiving feedback from other students).
- Collaborative Learning can lead to student success by deepening the understanding of a given topic. An example highlighted in Edutopia's Schools That Work series is The College Preparatory School in Oakland, CA. In this setting students utilized daily class worksheets and periodic group tests designed to be more challenging than individual homework or exams, and students quickly learn how they are able to solve problems as a group that they might not have struggled with on their own. Essentially, Collaborative Learning at The College Preparatory School aims to actively engage students with material and each other to maximize knowledge retention.
- Collaborative Learning in a composition classroom can unite students when assigned open-tasks. Kenneth Bruffee introduced the learning method, Classroom Consensus Group, in

which the instructor allocates groups of three to five (three being ideal) students and assigns a problem to be solved or question to be answered. There are two directions the non-foundational task can be presented: as an indistinct, no right answer that generates discussion or propose an answer and request questions and a process of how the answer came to be. Once the task is assigned, the instructor backs off in order to resist the urge to intervene in students' conversation. The goal is to remove focus of the instructor's authority. The instructor must keep time to ensure the students are centered on analogizing, generalizing, and bridging their comprehension with others. Following group discussion, the instructor is to evaluate, not judge, the students' work. Ideas should be presented to the entire class thus allowing the small groups to come together as a whole. It is then that the answers can be compared, gaps can be filled, and authority is not on one individual.

- Collaborative scripts structure collaborative learning by creating roles and mediating interactions while allowing for flexibility in dialogue and activities. Collaborative scripts are used in nearly all cases of collaborative learning some of which are more suited for face-to-face collaborative learning—usually, more flexible—and others for computer-supported collaborative learning—typically, more constraining. Additionally, there are two broad types of scripts: macro-scripts and micro-scripts. Macro-scripts aim at creating situations within which desired interactions will occur. Micro-scripts emphasize activities of individual learners.

### **Culture and Collaborative Learning**

There also exists cultural variations in ways of collaborative learning. Research in this area has mainly focused on children in Indigenous Mayan communities of the Americas or in San Pedro, Guatemala and European American middle-class communities.

Generally, researchers have found that children in Indigenous Mayan communities such as San Pedro typically learn through keenly observing and actively contributing to the mature activities of their community. This type of learning is characterized by the learner's collaborative participation through multi-modal communication verbal and non-verbal and observations. They are highly engaged within their community through focused observation. Mayan parents believe

that children learn best by observing and so an attentive child is seen as one who is trying to learn. It has also been found that these children are extremely competent and independent in self-maintenance at an early age and tend to receive little pressure from their parents.

Research has found that even when Indigenous Mayan children are in a classroom setting, the cultural orientation of indigenous learners shows that observation is a preferred strategy of learning. Thus children and adults in a classroom setting adopt cultural practice and organize learning collaboratively. This is in contrast to the European-American classroom model, which allocates control to teachers/adults allowing them to control classroom activities.

Within the European American middle-class communities, children typically do not learn through collaborative learning methods. In the classroom, these children generally learn by engaging in initiation-reply-evaluation sequences. This sequence starts with the teacher initiating an exchange, usually by asking a question. The student then replies, with the teacher evaluating the student's answer. This way of learning fits with European-American middle-class cultural goals of autonomy and independence that are dominant in parenting styles within European-American middle-class culture.

An article featured on Edutopia suggests reforming this educational practice in favor of facilitating collaborative learning. To start, teachers configure K-12 classroom geography to encourage face-to-face communication and eye contact, where students are allowed to take equally distributed initiative, with teachers acting as guides. In the process, students lead discussions and work independently with teacher oversight and help when asked, rather than explicit direction.

### **Collaborative Information Seeking**

Collaborative information seeking (CIS) is a field of research that involves studying situations, motivations, and methods for people working in collaborative groups for information seeking projects, as well as building systems for supporting such activities. Such projects often involve information searching or information retrieval (IR), information gathering, and information sharing. Beyond that, CIS can extend to collaborative information synthesis and collaborative sense-making.



Seeking for information is often considered a solo activity, but there are many situations that call for people working together for information seeking. Such situations are typically complex in nature, and involve working through several sessions exploring, evaluating, and gathering relevant information. Take for example, a couple going on a trip. They have the same goal, and in order to accomplish their goal, they need to seek out several kinds of information, including flights, hotels, and sightseeing. This may involve them working together over multiple sessions, exploring and collecting useful information, and collectively making decisions that help them move toward their common goal.

It is a common knowledge that collaboration is either necessary or highly desired in many activities that are complex or difficult to deal with for an individual. Despite its natural appeal and situational necessity, collaboration in information seeking is an understudied domain. The nature of the available information and its role in our lives have changed significantly, but the methods and tools that are used to access and share that information in collaboration have remained largely unaltered. People still use general-purpose systems such as email and IM for doing CIS projects, and there is a lack of specialized tools and techniques to support CIS explicitly.

There are also several models to explain information seeking and information behavior, but the areas of collaborative information seeking and collaborative information behavior remain understudied. A few specialized systems for supporting CIS have emerged in the recent past, but their usage and evaluations have underwhelmed. Despite such limitations, the field of CIS has been getting a lot of attention lately, and several promising theories and tools have come forth. A recent review of CIS related literature is written by Shah. His new book on this topic provides a comprehensive review of this field, including theories, models, systems, evaluation, and future research directions. Other notable books in this area include one by Morris and Teevan, as well as Foster's book on collaborative information behavior.

The literature is filled with works that use terms such as collaborative information retrieval, social searching, concurrent search, collaborative exploratory search,<sup>[10]</sup> co-browsing, collaborative information behavior, collaborative information synthesis, and collaborative information seeking, which are often used interchangeably.

There are several definitions of such related or similar terms in the literature. For instance, Foster defined collaborative IR as "the study of the systems and practices that enable individuals to collaborate during the seeking, searching, and retrieval of information." Shah defined CIS as a process of collaboratively seeking information that is "defined explicitly among the participants, interactive, and mutually beneficial." While there is still a lack of a definition or a terminology that is universally accepted, but most agree that CIS is an active process, as opposed to collaborative filtering, where a system connects the users based on their passive involvement (e.g., buying similar products on Amazon).

## Chapter 6

### Indy media

The Independent Media Center (also known as Indymedia or IMC) is a global participatory network of journalists that report on political and social issues. It originated during the Seattle anti-WTO protests worldwide in 1999 and remains closely associated with the global justice movement, which criticizes neo-liberalism and its associated institutions. Indymedia uses an open publishing and democratic media process that allows anybody to contribute.

According to its homepage, "Indymedia is a collective of independent media organizations and hundreds of journalists offering grassroots, non-corporate coverage. Indymedia is a democratic media outlet for the creation of radical, accurate, and passionate telling of truth." Indymedia was founded as an alternative to government and corporate media, and seeks to facilitate people being able to publish their media as directly as possible.

The first Indymedia project was started in late November 1999 to report on protests against the WTO meeting that took place in Seattle, Washington, and to act as an alternative media source. This followed a successful experiment in June that year, reporting the events of the Carnival against Capitalism in London, UK. The Media team there used software and unmediated reports from protest participants. The open publishing script was first developed by video activists in Sydney, Australia. "Even more importantly, a group of hackers in Sydney, Australia, had written a special piece of software for live updating of the webpage devoted to their local J18 event. Six months later, this "Active Software" would be used in the American city of Seattle, as the foundation of the Indymedia project – a multi perspectival instrument of political information and dialogue for the twenty-first century"

After Seattle the idea and network spread rapidly. By 2002, there were 89 Indymedia websites covering 31 countries (and the Palestinian territories), growing to over 150 by January 2006, not all of them currently active. Indymedia websites publish in a number of languages, including English, Spanish, German, Italian, Portuguese, French, Russian, Arabic and Hebrew.

IMC collectives distribute print, audio, photo, and video media, but are most well known for their open publishing newswires, sites where anyone with internet access can publish news from their own perspective. The content of an IMC is determined by its participants, both the users

who post content, and members of the local Indymedia collective who administer the site. While Indymedias worldwide are run autonomously and differ according to the concerns of their users, they share a commitment to provide copyleft content. The general rule is that content on Indymedia sites can be freely reproduced for non-commercial purposes.

The origins of IMCs themselves came out of protests against the concentrated ownership and perceived biases in corporate media reporting. The first IMC node, attached as it was to the Seattle anti-corporate globalization protests, was seen by activists as an alternative news source to that of the corporate media, which they accused of only showing violence and confrontation, and portraying all protesters negatively.

As a result, between 1999 and 2001, IMC newswires tended to be focused on up-to-the-minute coverage of protests, from local demonstrations to summits where anti-globalization movement protests were occurring, with protest coverage continuing into 2007.

IMC also run a global radio project which aggregates audio RSS feeds from around the world

IMC is formed of local collectives which are expected to be open and inclusive of individuals from a variety of different local anti-capitalist points of view, whether or not these have any definite political philosophy, so that even those without internet access can participate in both content creation and in content consumption. Editorial policies, locally chosen by any Indymedia collective, generally involve removing articles which the Indymedia editors believe promote racism, sexism, hate speech, and homophobia. All Indymedia collectives are expected to have a locally chosen, thoroughly discussed and clearly stated editorial policy for posts to their website.

## Chapter 7

### Online Newspaper

An online newspaper, also known as a web newspaper, which exists on the World Wide Web or Internet, either separately or as an online version of a printed periodical.

Going online created more opportunities for newspapers, such as competing with broadcast journalism in presenting breaking news in a more timely manner. The credibility and strong brand recognition of well-established newspapers, and the close relationships they have with advertisers, are also seen by many in the newspaper industry as strengthening their chances of survival. The movement away from the printing process can also help decrease costs.

Online newspapers are much like hard-copy newspapers and have the same legal boundaries, such as laws regarding libel, privacy and copyright, also apply to online publications in most countries, like in the UK. Also in the UK the Data Protection Act applies to online newspapers and news pages, as well as the PCC rules in the UK. But the distinction was not very clear to the public in the UK as to what a blog or forum site was and what an online newspaper was. In 2007, a ruling was passed to formally regulate UK based online newspapers, news audio, and news video websites covering the responsibilities expected of them and to clear up what is, and what isn't, an online publication.

News reporters are being taught to shoot video and to write in the succinct manner necessary for the Internet news pages. Many are learning how to implement blogs and the ruling by the UK's PCC should help this development of the internet. Some newspapers have attempted to integrate the internet into every aspect of their operations, i.e., reporters writing stories for both print and online, and classified advertisements appearing in both media; others operate websites that are more distinct from the printed newspaper. The Newspaper National Network LP is an online advertising sales partnership of the Newspaper Association of America and 25 major newspaper companies.

An early example of an "online only" newspaper or magazine is "News Report", an online newspaper created by Bruce Parrello in 1974 on the PLATO system at the University of Illinois. Beginning in 1987, the Brazilian newspaper Jornaldodia ran on the state owned Embratel

network (moving to the internet in the 1990s). By the late 1990s, hundreds of U.S. newspapers were publishing online versions, but did not yet offer much interactivity. One example is Britain's Weekend City Press Review, which provided a weekly news summary online beginning in 1995.

## EXAMPLES

Very few newspapers in 2006 will claim to have made money from their websites, which are mostly free to all viewers. Declining profit margins and declining circulation in daily newspapers have forced executives to contemplate new methods of obtaining revenue from websites, without charging for subscription. This has been difficult. Newspapers with specialized audiences such as The Wall Street Journal and The Chronicle of Higher Education successfully charge subscription fees. Most newspapers now have an online edition, including The Los Angeles Times, The Washington Post, USA Today, and The New York Times.

The Guardian experimented with new media in 2005, offering a free twelve part weekly podcast series by Ricky Gervais. Another UK daily to go online is The Daily Telegraph.

In India, major newspapers went online to provide latest and most updated news from them Times of India, Hindustan Times, The Hindu, Indian Express, Eenadu and The New Indian Express . Some newspapers even provide E-Paper which is regarded as the digital replica of the newspaper.

In Australia, some newspapers corporations offer an online version to let their readers read the news online, such as The Australian, Sydney Morning Herald.

The Santiago Times operates out of Santiago, Chile and is 100% on line, editions are published in English covering Chilean current events daily Monday through Friday.

### **Online Only Newspapers**

The true online only paper is a paper that does not have any hard copy connections. An example of this is an independent web only newspaper, introduced in the UK in 2000, called the Southport Reporter. It is a weekly regional newspaper that is not produced or run in any format other than 'soft-copy' on the internet by its publishers PCBT Photography. Unlike blog sites and other news websites it is run as a newspaper and is recognized by media groups in the UK, like the NUJ and/or the IFJ. Also they fall under the UK's PCC rules. Another

example is the Atlantic Highlands Herald, a New Jersey based web-only daily newspaper published in the US since 1999. But even print media is turning to online only publication. As of 2009, the collapse of the traditional business model of print newspapers has led to various attempts to establish local, regional or national online-only newspapers - publications that do original reporting, rather than just commentary or summaries of reporting from other publications. An early major example in the U.S. is the Seattle Post-Intelligencer, which stopped publishing after 149 years in March 2009 and went online only. In Scotland, in 2010, Caledonian Mercury became Scotland's first online-only newspaper with the same aims as Southport Reporter in the UK, with The Yorkshire Times following suit and becoming Yorkshire's first online-only paper in 2011.

In the US, technology news websites such as CNET, Tech Crunch, and ZDNet started as web publications and enjoy comparable readership to the conventional newspapers. Also, with the ever-rising popularity of online media, veteran publications like the U.S. News & World Report are abandoning print and going online-only.

Open publishing is a process of creating news or other content that is transparent to the readers. They can contribute a story and see it instantly appear in the pool of stories publicly available. Those stories are filtered as little as possible to help the readers find the stories they want. Readers can see editorial decisions being made by others. They can see how to get involved and help make editorial decisions. If they can think of a better way for the software to help shape editorial decisions, they can copy the software because it is free and change it and start their own site. If they want to redistribute the news, they can, preferably on an open publishing site.

Internet sites run on open publishing software allow anyone with Internet access to visit the site and upload content directly without having to penetrate the filters of traditional media. Several fundamental principles tend to inform the organizations and sites dedicated to open publishing, though they do so to varying degrees. These principles include non-hierarchy, public participation, minimal editorial control, and transparency.

Open publishing idea embedded the same concept, although didn't mention Eric S. Raymond's major insight. In Open Publishing problematic content is shallow. Given a large enough audience, peers, readers and commentators, almost all problematic content will be quickly

noticed highlighted and fixed. Arnison's Law: "Given enough eyeballs, problematic content is shallow."

It should be distinguished from open access publishing, the publishing of material organized in such a way that there is no financial or other barrier to the user. (All or almost all Open publishing is in fact also open access.)



## Chapter 8

### Embedded Journalism

Embedded journalism refers to news reporters being attached to military units involved in armed conflicts. While the term could be applied to many historical interactions between journalists and military personnel, it first came to be used in the media coverage of the 2003 invasion of Iraq. The United States military responded to pressure from the country's news media who were disappointed by the level of access granted during the 1991 Gulf War and the 2001 U.S. invasion of Afghanistan.

At the start of the war in March 2003, as many as 775 reporters and photographers were traveling as embedded journalists. These reporters signed contracts with the military promising not to report information that could compromise unit position, future missions, classified weapons, and information they might find. Joint training for war correspondents started in November 2002 in advance of start of the war. When asked why the military decided to embed journalists with the troops, Lt. Col. Rick Long of the U.S. Marine Corps replied, "Frankly, our job is to win the war. Part of that is information warfare. So we are going to attempt to dominate the information environment."

Gina Cavallaro, a reporter for the Army Times, said, "They're [the journalists] relying more on the military to get them where they want to go, and as a result, the military is getting smarter about getting its own story told." But, she added, "I don't necessarily consider that a bad thing."

The first journalist to run afoul of U.S. military rules in Iraq was freelancer Philip Smucker, travelling on assignment for the Christian Science Monitor with the 1st Marine Division. Smucker was not officially embedded, but all reporters in the theater of war were deemed subject to Pentagon oversight. On March 26, 2003, during an interview with CNN, Smucker disclosed the location of a Marine unit, as he'd also done during an interview with NPR. He was thereafter expelled.

Just four days later, Fox News Channel correspondent Geraldo Rivera similarly broadcast details from Iraq of the position and plans of U.S. troops. "Let me draw a few lines here for you," he said, making on-camera marks in the sand. "First, I want to make some emphasis here that these

hash marks here, this is us. We own that territory. It's 40%, maybe even a little more than that." At another point, complained a CENTCOM spokesman, Rivera "actually revealed the time of an attack prior to its occurrence." Although Rivera—like Philip Smucker—was not officially embedded, he was swiftly escorted back to Kuwait. A week later, Rivera apologized. "I'm sorry that it happened," he said on Fox News Channel, "and I assure you that it was inadvertent. Nobody was hurt by what I said. No mission was compromised." However, a network review, he admitted, "showed that I did indeed break one of the rules related to embedment."

In December 2005 the U.S. Coalition Forces Land Component Command in Kuwait pulled the credentials of two embedded journalists on a two-week assignment for the *Virginian-Pilot* newspaper in Norfolk, Virginia, claiming they violated the prohibition against photographing damaged vehicles.

The ethics of embedded journalism are considered controversial. The practice has been criticized as being part of a propaganda campaign and an effort to keep reporters away from civilian populations and sympathetic to invading forces; for example by the documentary films *War Made Easy: How Presidents & Pundits Keep Spinning Us to Death* and *The War You Don't See*.

Embed critics objected that the level of military oversight was too strict and that embedded journalists would make reports that were too sympathetic to the American side of the war, leading to use of the alternate term "in bedded journalist" or "in beds". "Those correspondents who drive around in tanks and armored personnel carriers," said journalist Gay Talese in an interview, "who are spoon-fed what the military gives them and they become mascots for the military, these journalists. I wouldn't have journalists embedded if I had any power!... There are stories you can do that aren't done. I've said that many times."

## Chapter 9

### Media Democracy

Media democracy is a set of ideas advocating reforming the mass media, strengthening public service broadcasting, and developing and participating in alternative media and citizen journalism. The stated purpose for doing so is to create a mass media system that informs and empowers all members of society, and enhances democratic values. It is a liberal-democratic approach to media studies that advocates the reformation of the mass media with an emphasis on public service broadcasting and audience participation, through the use of citizen journalism and alternative media channels. A media democracy focuses on using information technologies to both empower individual citizens and promote democratic ideals through the spread of information. Additionally, the media system itself should be democratic in its own construction shying away from private ownership or intense regulation. Media democracy entails that media should be used to promote democracy as well as the conviction that media should be democratic itself; media ownership concentration is not democratic and cannot serve to promote democracy and therefore must be examined critically. The concept, and a social movement promoting it, have grown as a response to the increased corporate domination of mass media and the perceived shrinking of the marketplace of ideas.

The term also refers to a modern social movement evident in countries all over the world which attempts to make mainstream media more accountable to the public they serve and to create more democratic alternatives

Big text The concept of a media democracy follows in response to the deregulation of broadcast markets and the concentration of mass media ownership. In their book *Manufacturing Consent: The Political Economy of the Mass Media*, authors Edward S. Herman and Noam Chomsky outline the propaganda model of media, which states that the private interests in control of media outlets will shape news and information before it is disseminated to the public through the use of five information filters. In this way, the construction of the mass media as a for-profit enterprise behaves in a way that runs counter to the democratic ideals of a free press.

Media democracy advocates that corporate ownership and commercial pressures influence media content, sharply limiting the range of news, opinions, and entertainment citizens receive. Consequently, they call for a more equal distribution of economic, social, cultural, and information capital, which would lead to a more informed citizenry, as well as a more enlightened, representative political discourse.

A media democracy advocates:

- Replacing the current libertarian media model with one that operates democratically, rather than for profit
- Strengthening public service broadcasting
- Incorporating the use of alternative media into the larger discourse
- Increasing the role of citizen journalism
- Turning a passive audience into active participants
- Using the mass media to promote democratic ideals

The competitive structure of the mass media landscape stands in opposition to democratic ideals since the competition of the marketplace affects how stories are framed and transmitted to the public. This can "hamper the ability of the democratic system to solve internal social problems as well as international conflicts in an optimal way."

Media democracy, however, is grounded in creating a mass media system that favours a diversity of voices and opinions over ownership or consolidation, in an effort to eliminate bias in coverage. This, in turn, leads to the informed public debate necessary for a democratic state. The ability to comprehend and scrutinize the connection between press and democracy is important because media has the power to tell a society's stories and thereby influence thinking, beliefs and behaviour. The concept of "democratizing the media" has no real meaning within the terms of political discourse in Western society.

A key idea of media democracy is that the concentration of media ownership in recent decades in the hands of a few corporations and conglomerates has led to a narrowing of the range of voices and opinions being expressed in the mass media; to an increase in the commercialization of news and information; to a hollowing out of the news media's ability to conduct investigative

reporting and act as the public watchdog; and to an increase of emphasis on the bottom line, which prioritizes infotainment and celebrity news over informative discourse.

Cultural studies have investigated changes in the increasing tendency of modern mass media in the field of politics to blur and confuse the boundaries between journalism, entertainment, public relations and advertising. A diverse range of information providers is necessary so that viewers, readers and listeners receive a broad spectrum of information from varying sources that is not tightly controlled, biased and filtered. Access to different sources of information prevents deliberate attempts at misinformation and allows the public to make their own judgments and form their own opinions. This is critical as individuals must be in a position to decide and act autonomously for there to be a functioning democracy.

The last several decades have seen an increased concentration of media ownership by large private entities. In the United States, these organizations are known as the Big Six. They include: General Electric, Walt Disney Co., News Corporation, Time Warner, Viacom, and CBS Corporation. A similar approach has been taken in Canada, where most media outlets are owned by national conglomerates. This has led to a reduction in the number of voices and opinions communicated to the public; to an increase in the commercialization of news and information; a reduction in investigative reporting; and an emphasis on infotainment and profitability over informative public discourse.

The concentration of media outlets has been encouraged by government deregulation and neoliberal trade policies. In the United States, the Telecommunications Act of 1996 removed most of the media ownership rules that were previously put in place. This led to a massive consolidation of the telecommunications industry. Over 4,000 radio stations were bought out, and minority ownership in TV stations dropped to its lowest point since 1990, when the federal government began tracking the data.

Several activist groups have formed on both local and national levels in the United States and Canada in response to the convergence of media ownership. Their aim is to spread awareness about the lack of diversity in the media landscape, and direct the public to alternative media. Additionally, these groups press for political solutions to the FCC in the United States and the CRTC in Canada to “oppose any further media consolidation.”

In the United States, the non-profit Media Access Project is a public interest law firm that advocates media democracy by "protect[ing] freedom of expression, promote[ing] universal and equitable access to media outlets and telecommunications services, and encourag[ing] vibrant public discourse on critical issues facing our society." The group has raised numerous concerns with the neoliberalization of media in the United States in recent years, particularly with regards to media ownership, net neutrality laws, and access to the wireless spectrum.

In Canada, OpenMedia.ca is a similar group that promotes media democracy by encouraging open communication systems through online campaigns, events, and workshops. In particular, the group's "Stop The Meter" campaign to petition against proposed usage-based billing was the largest online appeal in Canadian history.

Though the model aims to democratize the opinions expressed within the mass media as well as the ownership of media entities themselves, feminist media theory argues that the media cannot be considered truly inclusive or democratic insofar as they rely on the masculine concepts of impartiality and objectivity. Creating a more inclusive and democratic media would require reconceptualizing how we define the news and its principles. According to some feminist media theorists, news is like fictional genres that impose order and interpretation on its materials by means of narrative. Consequently, the news narrative put forward presents only one angle of a much wider picture.

It is argued that the distinction between public and private information that underpins how we define valuable or appropriate news content is also a gendered concept. The feminist argument follows that the systematic subversion of private or subjective information excludes women's voices from the popular discourse. Further to this point, feminist media theorists argue there is an assumed sense of equality or equalness implicit in the definition of the public that ignores important differences between genders in terms of their perspectives. So while media democracy in practice as alternative or citizen journalism may allow for greater diversity, these theorists argue that women's voices are framed within a masculine structure of objectivity and rationalist thinking.

Despite this criticism there is an acceptance among some theorists that the blurring of public and private information with the introduction of some new alternative forms of media production (as well as the increase in opportunities for interaction and user-generated content) may signal a

positive shift towards a more democratic and inclusive media democracy. Some forms of media democracy in practice (as citizen or alternative journalism) are challenging journalism's central tenants (objectivity and impartiality) by rejecting the idea that it is possible to tell a narrative without bias and, more to the point, that it is socially or morally preferable.

### **Internet Media Democracy**

The World Wide Web, and in particular Web 2.0, is seen as a powerful medium for facilitating the growth of a media democracy as it offers participants, " a potential voice, a platform, and access to the means of production." Because the web allows for each person to share information instantly with few barriers to entry across a common infrastructure, it is often held up as an example of the potential power of a media democracy.

The use of digital social networking technologies to promote political dissent and reform lends credibility to the media democracy model. This is apparent in the widespread protests in the Middle East and North Africa known as the Arab Spring where social media sites like Facebook, Twitter, and YouTube allowed citizens to quickly connect with one another, exchange information, and organize protests against their governments. While social media cannot solely be credited with the success of these protests, the technologies played an important role in instilling change in Tunisia, Egypt, and Libya. These acts show a population can be informed through alternative media channels, and can adjust its behaviour accordingly.

## Chapter 10

### Streaming Media

Streaming media is multimedia that is constantly received by and presented to an end-user while being delivered by a provider. Its verb form, "to stream", refers to the process of delivering media in this manner; the term refers to the delivery method of the medium rather than the medium itself.

A client media player can begin playing the data (such as a movie) before the entire file has been transmitted. Distinguishing delivery method from the media distributed applies specifically to telecommunications networks, as most other delivery systems are either inherently streaming (e.g., radio, television) or inherently non streaming (e.g., books, video cassettes, audio CDs). For example, in the 1930s, elevator music was among the earliest popularly available streaming media; nowadays Internet television is a common form of streamed media. The term "streaming media" can apply to media other than video and audio such as live closed captioning, ticker tape, and real-time text, which are all considered "streaming text". The term "streaming" was first used in the early 1990s as a better description for video on demand on IP networks; at the time such video was usually referred to as "store and forward video", which was misleading nomenclature.

Live streaming, which refers to content delivered live over the Internet, requires a camera for the media, an encoder to digitize the content, a media publisher, and a content delivery network to distribute and deliver the content.

In the early 1920s, George O. Squier was granted patents for a system for the transmission and distribution of signals over electrical lines which was the technical basis for what later became Muzak, a technology streaming continuous music to commercial customers without the use of radio.

Attempts to display media on computers date back to the earliest days of computing in the mid-20th century. However, little progress was made for several decades, primarily due to the high cost and limited capabilities of computer hardware. From the late 1980s through the 1990s, consumer-grade personal computers became powerful enough to display various media. The primary technical issues related to streaming were:



- having enough CPU power and bus bandwidth to support the required data rates
- creating low-latency interrupt paths in the operating system to prevent buffer under run.

However, computer networks were still limited, and media were usually delivered over non-streaming channels, such as by downloading digital file from a remote server and then saving it to a local drive on the end user's computer or storing it as a digital file and playing it back from CD-ROMs.

New technologies

During the late 1990s and early 2000s, Internet users saw:

- greater network bandwidth, especially in the last mile
- increased access to networks, especially the Internet
- use of standard protocols and formats, such as TCP/IP, HTTP, HTML
- commercialization of the Internet.

"Severe Tire Damage" was the first band to perform live on the Internet. On June 24, 1993, the band was playing a gig at Xerox PARC while elsewhere in the building, scientists were discussing new technology (the Mbone) for broadcasting on the Internet using multicasting. As proof of their technology, the band was broadcast and could be seen live in Australia and elsewhere.

Real Networks was also a pioneer in the streaming media markets, when it broadcast a baseball game between the New York Yankees and the Seattle Mariners over the Internet in 1995.

The first symphonic concert on the internet took place at the Paramount Theater in Seattle, Washington on November 10, 1995. The concert was a collaboration between The Seattle Symphony and various guest musicians such as Slash (Guns 'n Roses, Velvet Revolver), Matt Cameron (Soundgarden, Pearl Jam), and Barrett Martin (Screaming Trees).

When Word Magazine launched in 1995, they featured the first-ever streaming soundtracks on the Internet. Using local downtown musicians the first music stream was "Big Wheel" by Karthik Swaminathan and the second being "When We Were Poor" by Karthik Swaminathan with Marc Ribot and Christine Bard.

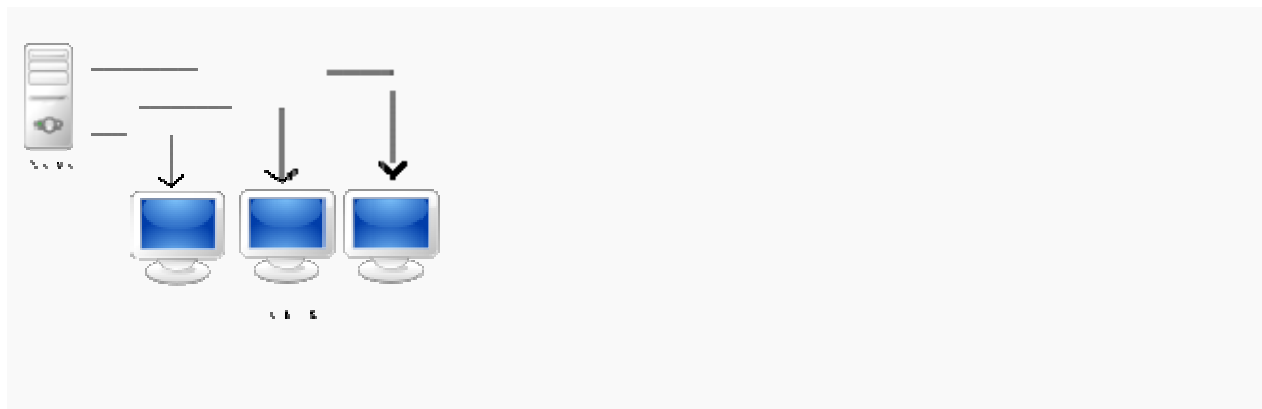
These advances in computer networking, combined with powerful home computers and modern operating systems, made streaming media practical and affordable for ordinary consumers. Stand-alone Internet radio devices emerged to offer listeners a no-computer option for listening to audio streams. In general, multimedia content has a large volume, so media storage and transmission costs are still significant. To offset this somewhat, media are generally compressed for both storage and streaming.

Increasing consumer demand for streaming of high definition (HD) content has led the industry to develop a number of technologies such as Wireless HD or ITU-T G.hn, which are optimized for streaming HD content without forcing the user to install new networking cables.

Today, a media stream can be streamed either live or on demand. Live streams are generally provided by a means called "true streaming". True streaming sends the information straight to the computer or device without saving the file to a hard disk. On-demand streaming is provided by a means called progressive streaming or progressive download. Progressive streaming saves the file to a hard disk and then is played from that location. On-demand streams are often saved to hard disks and servers for extended amounts of time; while the live streams are only available at one time only (e.g., during the football game).

Streaming media is increasingly being coupled with use of social media. For example, sites such as YouTube encourage social interaction in webcasts through features such as live chat, online surveys, etc. Furthermore, streaming media is increasingly being used for social business and e-learning.

A broadband speed of 2.5 Mbit/s or more is recommended for streaming movies, for example to a Roku, Apple TV, Google TV or a Sony TV Blu-ray Disc Player, 10 Mbit/s for High Definition content.



Unicast connections require multiple connections from the same streaming server even when it streams the same content

Streaming media storage size is calculated from the streaming bandwidth and length of the media using the following formula (for a single user and file):

$$\text{storage size (in megabytes)} = \text{length (in seconds)} \times \text{bit rate (in bit/s)} / (8 \times 1024 \times 1024)$$

Real world example:

One hour of video encoded at 300 kbit/s (this is a typical broadband video as of 2005 and it is usually encoded in a  $320 \times 240$  pixels window size) will be:

$$(3,600 \text{ s} \times 300,000 \text{ bit/s}) / (8 \times 1024 \times 1024) \text{ requires around 128 MB of storage.}$$

If the file is stored on a server for on-demand streaming and this stream is viewed by 1,000 people at the same time using a Unicast protocol, the requirement is:

$$300 \text{ kbit/s} \times 1,000 = 300,000 \text{ kbit/s} = 300 \text{ Mbit/s of bandwidth}$$

This is equivalent to around 135 GB per hour. Using a multicast protocol the server sends out only a single stream that is common to all users. Therefore such a stream would only use 300 kbit/s of serving bandwidth. See below for more information on these protocols.

The calculation for live streaming is similar.

Assumptions: speed at the encoder, is 500 kbit/s.

If the show lasts for 3 hours with 3,000 viewers, then the calculation is:

Number of MBs transferred = encoder speed (in bit/s) × number of seconds × number of viewers / (8\*1024\*1024)

Number of MBs transferred = 500 x 1024 (bit/s) × 3 × 3,600 (= 3 hours) × 3,000 (nbr of viewers) / (8\*1024\*1024) = 1,977,539 MB

The audio stream is compressed using an audio codec such as MP3, Vorbis or AAC.

The video stream is compressed using a video codec such as H.264 or VP8.

Encoded audio and video streams are assembled in a container bitstream such as MP4, FLV, WebM, ASF or ISMA.

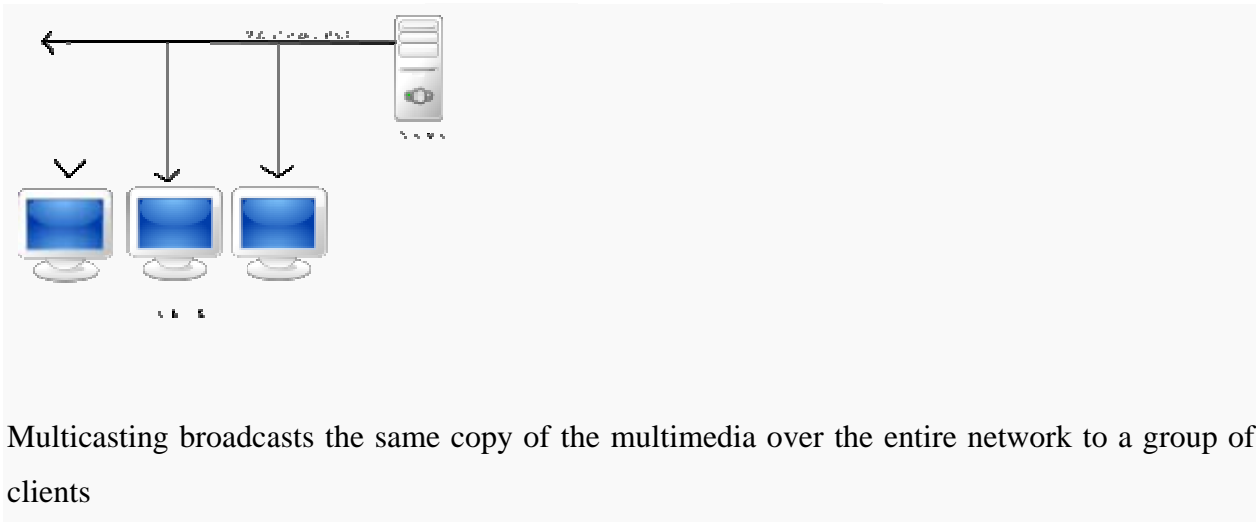
The bitstream is delivered from a streaming server to a streaming client using a transport protocol, such as MMS or RTP. Newer technologies such as HLS, Microsoft's Smooth Streaming, Adobe's HDS and finally MPEG-DASH have emerged to enable adaptive bitrate streaming over HTTP as an alternative to using proprietary transport protocols.

The streaming client may interact with the streaming server using a control protocol, such as MMS or RTSP.

Designing a network protocol to support streaming media raises many problems, such as:

- Datagram protocols, such as the User Datagram Protocol (UDP), send the media stream as a series of small packets. This is simple and efficient; however, there is no mechanism within the protocol to guarantee delivery. It is up to the receiving application to detect loss or corruption and recover data using error correction techniques. If data is lost, the stream may suffer a dropout.
- The Real-time Streaming Protocol (RTSP), Real-time Transport Protocol (RTP) and the Real-time Transport Control Protocol (RTCP) were specifically designed to stream media over networks. RTSP runs over a variety of transport protocols, while the latter two are built on top of UDP.
- Another approach that seems to incorporate both the advantages of using a standard web protocol and the ability to be used for streaming even live content is adaptive bitrate streaming. HTTP adaptive bitrate streaming is based on HTTP progressive download, but contrary to the previous approach, here the files are very small, so that they can be compared to the streaming of packets, much like the case of using RTSP and RTP.<sup>[10]</sup>

- Reliable protocols, such as the Transmission Control Protocol (TCP), guarantee correct delivery of each bit in the media stream. However, they accomplish this with a system of timeouts and retries, which makes them more complex to implement. It also means that when there is data loss on the network, the media stream stalls while the protocol handlers detect the loss and retransmit the missing data. Clients can minimize this effect by buffering data for display. While delay due to buffering is acceptable in video on demand scenarios, users of interactive applications such as video conferencing will experience a loss of fidelity if the delay that buffering contributes to exceeds 200 ms.
- Unicast protocols send a separate copy of the media stream from the server to each recipient. Unicast is the norm for most Internet connections, but does not scale well when many users want to view the same television program concurrently.



- Multicast protocols were developed to reduce the server/network loads resulting from duplicate data streams that occur when many recipients receive unicast content streams independently. These protocols send a single stream from the source to a group of recipients. Depending on the network infrastructure and type, multicast transmission may or may not be feasible. One potential disadvantage of multicasting is the loss of video on demand functionality. Continuous streaming of radio or television material usually precludes the recipient's ability to control playback. However, this problem can be mitigated by elements such as caching servers, digital set-top boxes, and buffered media players.
- IP Multicast provides a means to send a single media stream to a group of recipients on a computer network. A multicast protocol, usually Internet Group Management Protocol, is

used to manage delivery of multicast streams to the groups of recipients on a LAN. One of the challenges in deploying IP multicast is that routers and firewalls between LANs must allow the passage of packets destined to multicast groups. If the organization that is serving the content has control over the network between server and recipients (i.e., educational, government, and corporate intranets), then routing protocols such as Protocol Independent Multicast can be used to deliver stream content to multiple Local Area Network segments.

- Peer-to-peer (P2P) protocols arrange for prerecorded streams to be sent between computers. This prevents the server and its network connections from becoming a bottleneck. However, it raises technical, performance, quality, and business issues.

### **Applications and Marketing**

- Useful - and typical - applications of the "streaming" concept are, for example, long video lectures performed "online" on the Internet.<sup>[12]</sup> An advantage of this presentation is that these lectures can be very long, indeed, although they can always be interrupted or repeated at arbitrary places.
- There are also new marketing concepts. For example the Berlin Philharmonic Orchestra sells Internet live streams of whole concerts, instead of several CDs or similar fixed media, by their so-called "Digital Concert Hall" <sup>[13]</sup> using YouTube for "trailing" purposes only. These "online concerts" are also spread over a lot of different places - cinemas - at various places on the globe. A similar concept is used by the Metropolitan Opera in New York.

## Chapter 11

### Electronic Publishing

Electronic publishing (also referred to as e-Publishing or digital publishing) includes the digital publication of e-books, EPUBs, digital magazines (also sometimes known as electronic articles), and the development of digital libraries and catalogues.

Electronic publishing has become common in scientific publishing where it has been argued that peer-reviewed scientific journals are in the process of being replaced by electronic publishing. It is also becoming common to distribute books, magazines, and newspapers to consumers through tablet reading devices, a market that is growing by millions each year, generated by online vendors such as Apple's iTunes bookstore, Amazon's bookstore for Kindle, and books in the Google Play Bookstore. Market research suggests that half of all magazine and newspaper circulation will be via digital delivery by the end of 2015 and that half of all reading in the United States will be done without paper by 2015. Although distribution via the Internet (also known as online publishing or web publishing when in the form of a website) is nowadays strongly associated with electronic publishing, there are many non network electronic publications such as Encyclopedias on CD and DVD, as well as technical and reference publications relied on by mobile users and others without reliable and high speed access to a network. Electronic publishing is also being used in the field of test-preparation in developed as well as in developing economies for student education (thus partly replacing conventional books) - for it enables content and analytics combined - for the benefit of students. The use of electronic publishing for textbooks may become more prevalent with iBooks from Apple Inc. and Apple's negotiation with the three largest textbook suppliers in the U.S.

Electronic publishing is increasingly popular in works of fiction as well as with scientific articles. Electronic publishers are able to provide quick gratification for late-night readers, books that customers might not be able to find in standard book retailers (erotica is especially popular in eBook format, and books by new authors that would be unlikely to be profitable for traditional publishers).

While the term "electronic publishing" is primarily used today to refer to the current offerings of online and web-based publishers, the term has a history of being used to describe the

development of new forms of production, distribution, and user interaction in regard to computer-based production of text and other interactive media.

The electronic publishing process follows a traditional publishing process but differs from traditional publishing in two ways: 1) it does not include using an offset printing press to print the final product and 2) it avoids the distribution of a physical product. Because the content is electronic, it may be distributed over the Internet and through electronic bookstores. The consumer may read the published content on a website, in an application on a tablet device, or in a PDF on a computer. In some cases the reader may print the content using a consumer-grade ink-jet or laser printer or via a print on demand system.

Distributing content electronically as apps has become popular due to the rapid consumer adoption of smart phones and tablets. At first, native apps for each mobile platform were required to reach all audiences, but in an effort toward universal device compatibility, attention has turned to using HTML5 to create web apps that can run on any browser.

The benefit of electronic publishing comes from using three attributes of digital technology: XML tags to define content, style sheets to define the look of content, and metadata to describe the content for search engines. With the use of tags, style sheets, and metadata, this enables reflowable content that adapts to various reading devices or delivery methods.

Because electronic publishing often requires text mark-up to develop online delivery methods, the traditional roles of typesetters and book designers have changed. Designers must know more about mark-up languages, the variety of reading devices available, and the ways in which consumers read. However, new design software is becoming available for designers to publish content in this standard without needing to know programming, such as Adobe Systems' Digital Publishing Suite and Apple's iBooks Author. The most common file format is .epub, used in many e-book formats, which is a free and open standard available in many publishing programs. Another common format is .folio, which is used by the Adobe Digital Publishing Suite to create content for Apple's iPad tablets and apps.

After an article is submitted to a journal for consideration, there can be a delay ranging from several months to more than two years before it is published in a journal, rendering journals a less than ideal format for disseminating current research. In some fields such as astronomy and



some parts of physics, the role of the journal in disseminating the latest research has largely been replaced by preprint repositories such as arXiv.org. However, scholarly journals still play an important role in quality control and establishing scientific credit. In many instances, the electronic materials uploaded to preprint repositories are still intended for eventual publication in a peer-reviewed journal.

There is statistical evidence that electronic publishing provides wider dissemination. A number of journals have, while retaining their peer review process, established electronic versions or even moved entirely to electronic publication.

Copyright laws are currently tailored to printed books. Electronic publishing brings up new questions in relation to copyright. E-Publishing may be more collaborative, often involving more than one author, and more accessible, since it is published online. This opens up more doors for plagiarism or theft.

Some publishers are trying to change this. For example, HarperCollins limited the number of uses that one of its ebooks can be lent in a public library. Others, such as Penguin, are attempting to incorporate the elements of the eBook into their publications instead.

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