Flow To Files: Conceiving 21st Century Media

Derek Kompare, Texas Christian University
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For the fact is that many of us do sit there, and much of the critical significance of television must be related to this fact.

— Raymond Williams, *Television: Technology and Cultural Form* (95-96)

In 1973, Raymond Williams watched and thought about a lot of television. It struck him that the essential element of television broadcasting was not the programs themselves, and not only their sequencing, but also the fact that programmers and viewers alike were complicit in this practice. Roughly thirty years after its introduction, television had become one of the primary cultural forms in most industrialized societies. More than any other prior medium of communication, it had fostered a synchronous, linear relationship between media content and audience, whereby the former compelled the latter through time and consciousness. The term Williams chose to designate this phenomenon was flow. Although he didn't coin this concept—it had been applied within the commercial broadcasting industry for years—he introduced it to the academic study of television, and it has since been articulated with both Williams and television studies. Roughly thirty years after *its* introduction, flow is still the primary metaphor used by television studies to describe broadcast media.[1]

However, at the beginning of the 21st century, much so-called "mass" electronic communication, including television, does not always "flow." It can arrive in our perceptions in discrete, malleable packages, rather than a constant stream. We can stop it, repeat it, rearrange it, edit it, catalogue it, and discard it. Whereas flow is immersive, placing viewers within a seemingly endless textual system, this new communication is bordered, an array of distinctive objects rather than an undifferentiated background. It is best described by a more appropriate term for our dispersed-yet-connected, multitasking world: the file. One of the key textual forms

of the past century, a file is informative (i.e., it must contain information), accessible, and mobile. It functions at our individual discretion; we are (active) *users* rather than (passive) viewers. Though it delivers much of the same content once exclusive to flow, the file fosters a much different relationship with its "audience."

Metaphors are useful yet dangerous, conveying complex ideas in a clear linguistic package, but risking distorting these ideas in the name of clarity. Nevertheless, like theory, metaphors structure thought and foster further exploration. As the legacy of flow indicates, metaphors can have material effects on media and culture (or at least on media studies and cultural studies). Accordingly, I wish to suggest a new metaphor, revisit an old one, and speculate about their relationship. In considering the properties of flow and file, I argue that while the latter is clearly the emergent media form of the new century, the former will remain a viable media practice for the foreseeable future. This is not due to anything inherent in these forms, but rather their relationship to particular technologies and social institutions: among them, the late-capitalist system of flexible accumulation, the commercial broadcasting system, the schizoid relationship between media hardware manufacturers and media software producers, the cultures of electronic media, and, with a decidedly rising influence, the law. There are significant reasons to distinguish between these forms at this time, but the file is not simply "replacing" flow. Indeed, as I will demonstrate, flow is not only still prevalent; it is increasingly entrenched.

Flow

Williams' theorization of flow has been a constant source of critical exploration since it first appeared a generation ago. As arguably the first identified critical property of television

broadcasting, it was mostly taken up by scholars to distinguish television's textuality from that of film.[2] However, I believe the concept of flow is more clearly distinguished now than ever before, as it apparent successor, the file, is now manifest in virtually every corner of media. Flow stands out now not so much as an *inherent property* of a particular kind of media (i.e., broadcasting) as Williams claimed in the 1970s, but rather a specific *cultural practice*, a verb as well as a noun. That is to say media is made *to flow*, rather than *only* functioning *as a flow*.[3]

What is flow? In Williams' original conception, flow is a *property of broadcast media* in that individual programs or segments are not as significant as the *overall* experience of broadcasting per se. Thus, as in his examples of both American and British television, an entire evening of television, with all its forward-looking admonitions to "keep on viewing" is understood as the real text. Moreover, all of television itself, across days, weeks, months, and years, is the actual point of the endeavor; that is, producing a sustained relationship between programmer and audience. Flow is thus a time bound (i.e., we are asked to attend to the set at particular times), yet seemingly endless, stream of signs engaging us not so much as individual viewers but as an *audience,* a collective entity participating in the same signs at the same time. As Williams remarked, "the fact of flow" is "the central television experience" (95).

The point of flow, as any programming executive will tell you, is to create and sustain these audiences, whether they are constituted as citizens, as in the classic public service broadcasting model, or, more likely, as potential consumers, as in commercial broadcasting.[4] The premise that particular audiences can be gathered and drawn out across several hours in one go, and then reliably do it again the next day or week, is absolutely critical to broadcast economics. Audiences are measured and capital is exchanged: viewers get to participate in television culture; advertisers get access to demographically desirable eyes, ears, and wallets;

and broadcasters are rewarded by each group: happy viewers keep coming back to their sets, and happy advertisers keep purchasing commercial time, thus sustaining the broadcast system.

Due to these transactions of economic and cultural capital, flow has been essential to the growth of television as an industry and cultural form. Despite periodic technological, industrial, and cultural challenges (e.g., from theater television, pay-per-view, and home video), flow is still virtually synonymous with television. However, due to the advances and deployment of digital technologies, as well as the spread of globalization and flexible accumulation, our entire media system is shifting into a new era where old, reliable models—i.e., flow—do not always work. Enter the new, dynamic model: the file.

The File

The file is the opposite of flow. As flow creates large, synchronous audiences over long stretches of time, the file is made available directly to individuals in small packages on an ad hoc basis. In its most conventional form—as a folder full of printed information—it has arguably been the material lifeblood of the 20th century, present in every social institution from the smallest local collective to the largest nation-state. It combines three modern values: information, access, and mobility. Though it has functioned to sustain societies, its primary characteristic is individual choice and access, rather than collective participation. In the contemporary world, its archetypal technology is not the multi-drawered cabinet, but the personal computer.

Since at least the late 1970s, the file has been the ubiquitous object of computer data processing. Whether the objects are binary code, text documents, statistical data, images, HTML files, sounds, video, or any other accessible form, they are *all* designated as files. Moreover, as

Lev Manovich points out, regardless of what their contents are or might do, all these files are essentially the same: bundles of digital data (27-30). No matter what else it may do, it's still a file like any other file. Accordingly, the file metaphor and its related terms (e.g., folder, directory, delete, copy, etc.) have been virtually universal on personal computers from the get-go.

Unlike the "liquid" nature of televisual flow, which remains a somewhat abstract concept, the file has a materiality reinforced in computer interfaces. Apple began graphically representing files and folders early on, drawing upon their real-world iconography: blank sheets of paper, tabbed manila folders, and even file "cabinets" soon became part of the typical GUI (graphical user interface). The drop-down "File" menu is a near-universal standard in most software, providing creation ("New"), access ("Open"), and storage ("Save"), among other, more task-specific functions. Files are therefore tangible and malleable on computers, if only in a virtual sense. They have a visual dimension (i.e., as a manipulable graphical object on your screen) that can be readily accessed with a mouse click. They are one of the primary factors which make the computer a "push" media techonology, as is often claimed.[5]

As processing speeds have increased and storage capacities have expanded, increasingly complex sets of digital data have become files. Over the past two decades, high-resolution still images, sounds, and moving images have been digitized and made accessible as computer files.[6] Moreover, many of these files are in turn made even more accessible via the Internet—the ultimate file cabinet. Unlike the television networks, which *disseminate* effectively in only one direction (center to periphery), thus facilitating the logic of flow, the fundamental point of the Internet is the *sharing* of information through infinite nodes. Software applications ranging from USENET news to peer-to-peer networks have greatly facilitated the exchange of files throughout

the Internet and the online world in general. Thus the file, already malleable, is now profoundly *mobile*, and this is what scares the flow industries.

Audio and video, mostly in the forms of MP3 and DivX AVI files, respectively, are now routinely exchanged online. Almost all of these files are unauthorized copies of copyrighted material, drawing the ire of media corporations who are fighting to put technology and the law back on their side. They see the high quality, almost universally available content "traded" on the Internet as a serious threat to their very existence, and have struck out at software and hardware companies like Napster and SonicBlue that facilitate these exchanges.[7] It is tempting to equate the metaphorical file with the material reality of file trading, as the media industries have consistently done in their apocalyptic warnings about the demise of film, television, and popular music at the hands of "online piracy." However, although an increasing amount and variety of content is certainly exchanged this way, the actual situation is far from the scenario painted by these copyright holders. The data relating to online file trading is notoriously inconsistent and difficult to place in context; the extent and effect of this activity are currently matters of intense debate. Moreover, online trading is rarely as simple as its mythic representation in the popular press and nightmares of AOL-Time Warner and Disney executives. The more complex the data (e.g., a feature film-length video file), the larger the file, the longer it takes to download, and the more difficult its functioning on any given computer. Nevertheless, the material reality of digital file trading does bear enough validity to (at least) suggest the possibilities of the fully accessible, fully mobile, fully individuated metaphorical file.

Managing Flow and File

However, since the primary aspects of the file are accessibility, mobility, and ad hoc use, they've been around long before Napster. They're known as books. Or records. Or videotapes and laserdiscs. In other words, older forms of media *designed* for discretionary use; forms that the flow industries had to distinguish themselves *against* during television's first decades. Ironically, these are forms that these corporations have increasingly relied upon to bolster revenues; flow alone can no longer sustain them. As the technologies and discourses of choice have dramatically expanded via the file, it is no accident that these older forms have become digitized: e-books, webzines, MP3 jukeboxes, media players with "VCR" controls, etc. A discourse of individual choice is ascendant in media hardware and software, facilitated much more by the file rather than flow.

Moreover, the same technologies are increasingly affecting the operation of the flow industries in direct challenges to the heart of its authority: the television set. The model of the file is advancing on television screens all over the world, forcing the flow industries to adjust their business practices. The burgeoning home video industry is a key factor in this regard, representing an increasing share of overall revenue for media corporations. Even the expansion of "flows"—in the form of cable and satellite channels—challenged the centrality of the dominant networks and offered viewers more choices. Currently, video on demand (VOD) and subscription video on demand (SVOD) systems, which enable viewers to select content on their schedules through their cable or satellite box, are debuting on cable systems nationwide, and digital video recorders (DVRs) are directly transforming television's flow into discrete, malleable, and even mobile digital files.[8]

Does this mean that flow, as Williams described it, is dying? Its dominance is receding, but it will remain viable not so much for technological reasons, but *for as long as the flow industries can extend it*. Thus, flow and file co-exist, and will continue to do so for the foreseeable future. While individual users are not likely to give up the newfound convenience of the file, television programmers and advertisers will similarly not relinquish the fundamental basis of their businesses built via flow. Rather, both metaphors, though seemingly incompatible, will continue to drive both the media industry, and our experiences of its products.

Space does not permit a full exploration of this relationship, which is being played out in legal, technological, economic, and cultural spheres across the globe. However, I wish to close with two recent events that exemplify how the flow industries are protecting themselves against the file.

First, in an interview published in the April 29, 2002 edition of *Cable World* magazine, Turner CEO Jamie Kellner likened DVR users who skip commercials, thus thwarting the industry's rationale for flow, to thieves: "[skipping commercials is] theft. Your contract with the network when you get the show is you're going to watch the spots. Otherwise you couldn't get the show on an ad-supported basis. Any time you skip a commercial . . . you're actually stealing the programming."[9] From his perspective, viewers should not only be expected to watch the ads; they should effectively be *compelled* to do so by limiting DVR functionality.

Second, in a court case pitting every major media provider against DVR manufacturer SonicBlue, Los Angeles Central District Court Magistrate Charles F. Eick struck a blow for flow in a pre-trial order early this week, ordering DVR manufacturer and service provider SonicBlue to turn over data about its users' viewing behaviors. SonicBlue's ReplayTV 4000 is, to date, the ultimate transformation of flow to file. Its hard drive holds 320 hours of television, and it

features a "commercial skip" button and Ethernet port, so that users may exchange programs with other ReplayTV units. Judge Eick's judgment baldly favored the plaintiffs' "need to know" how the copyrighted works were being used over users' privacy, ordering SonicBlue to detail "what works are copied, stored, viewed with commercials omitted, or distributed."[10]

It is much too soon to tell how these, or any of the many other, scenarios will play out. The overall issue remains however: while the file is ascendant—technologically, culturally, and economically—flow is finding ways to adapt and survive, particularly through law and regulation. The copyright owners' attempts to police file transactions on the Internet, or force DVR users to be good flow-consumers will never succeed outright, but they will provide just enough maneuvering to fully adapt to the new regime. In the meantime, we media scholars need to attend more to how *both* regimes—flow and file—shape our media experiences, and maintain a critical eye on this ongoing transition.

WORKS CITED

Lev Manovich, *The Language of New Media* (Cambridge, MA: MIT Press, 2001).

Raymond Williams, *Television: Technology and Cultural Form* (New York: Schocken, 1974).

NOTES

[1] I am using "broadcast media" and "broadcasting" in the broad sense in this paper, i.e., to refer to centralized forms of electronically disseminated media, rather than only the "over-the-air" media.

[2] The key articles in this regard include Rick Altman, "Television Sound," in Tania Modleski, ed., *Studies In Entertainment: Critical Approaches to Mass Culture* (Bloomington: Indiana University Press, 1986) 39-54; Nick Browne, "The Political Economy of the Television (Super) Text," in Horace Newcomb, ed., *Television: The Critical View* (4th Ed.) (New York: Oxford University Press, 1987) 585-99; Jane Feuer, "The Concept of Live Televisoin: Ontology as Idelogy," in E. Ann Kaplan, ed,. *Regarding Television* (Los Angeles: University Publications of America, 1983) 12-22; and Tania Modleski, "The Rhythms of Reception: Daytime Television and Women's Work," in E. Ann Kaplan, ed., *Regarding Television* (Los Angeles: University Publications of America, 1983) 67-75.

[3] Mimi White's paper, "Flows and Other Close Encounters With Television," also presented on this panel, argues that the normative quality of Williams' flow should be seen in the context of an archetypal "first encounter" with an "alien" culture.

[4] The line between citizen and consumer is blurry at best when constituted by any broadcasting system, and even more so given the expansion of commercial television over the past quarter-century in nearly every country on the planet.

[5] By contrast, television, as the primary technology of flow, is also the archetypal "pull" technology; that is, its contents draw viewers in with little, if any interaction.

[6] Compression algorithms, designed to reduce file size while maintaining the quality of the information, have also contributed to the accessability and mobility of otherwise complex digital data.

[7] Napster, the embattled company that made online music trading a phenomenon in 1999-2000, hosted software which facilitated the search and transfer of MP3 files (compressed digital audio files), while SonicBlue is the manufacturer of the ReplayTV digital video recorder, a device that attempts to circumvent the flow of television through several functions. Though both companies have been the target of public complaint and litigation by the media industries, they have also been the recipients of not-insubstantial capital investment from many of the same companies.

[8] SonicBlue's ReplayTV 4000 features an Ethernet port that enables its users to exchange recorded programs with distant users of the same device.

[9] Qtd. in Staci D. Kramer, "Content's King," *Cable World*, 29 April 2002, <http://www.inside.com/product/product.asp?entity=CableWorld&pf_ID=7A2ACA71-FAAD-41FC-A100-0B8A11C30373>

[10] Qtd. in Holly J. Wagner, "Magistrate Orders SonicBlue to Get Up Close and Personal," Hive4Media.com, 8 May 2002, < http://www.hive4media.com/news/html/breaking_article.cfm?article_id=3083>.