

THE PRINCIPLES OF MULTIMEDIA JOURNALISM

PACKAGING DIGITAL NEWS



RICHARD KOCI HERNANDEZ AND JEREMY RUE



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The Evolution of the Digital News Package

Everything is the way it is because it got that way.

—D’Arcy Wentworth Thompson, *On Growth and Form*

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An Uncertain Path to Multimedia

One afternoon in 1999, as I pulled my company car into the parking lot of the *San Jose Mercury News*, I was met by security guards who greeted me playfully, yet forcibly, to inform me they would be removing the film cameras from my trunk and replacing them with the latest technology at the time: Canon EOS D2000, one of the first usable professional digital cameras. I had dug my heels in the sand recently during a staff meeting, declaring exaggeratedly, “The only way I’ll switch from film to digital is by force.” So the staged presence of security guards by the top brass was a bit of playful payback for my stubbornness.

Swapping film for pixels, I was suddenly ushered into the digital age. Little did I know the rest of my career trajectory hinged on what had happened that day. We were on the verge of the new millennium. It wasn’t only the journalistic tools that were about to change—it was also the journalist. In time, I would be the first photographer to hold a newsroom position at the *Mercury News* with the word “multimedia” in my title. It was a dizzying time to work at the “*Merc.*” I had started in 1991 as a photo intern. A few years later the digital skunk works dubbed Mercury Center by then executive editor Bob Ingle were in full swing. In hindsight, Ingle would be seen as one

of the early digital media revolutionaries. By 1995, the *Merc* became the first news site in the nation to migrate to the Web.¹

But, despite being in the heart of this commotion—a tech boom under way in the Silicon Valley—I didn’t immediately recognize the introduction of the World Wide Web as anything other than another vehicle for delivering news, no different than newsprint. Lost on me was the interactive and immersive potential of this medium. As a content producer, I couldn’t imagine anything beyond adding a hyperlink to a story or having a user just click the “next” button to advance a gallery of photos. I didn’t see the true potential of digital for more expansive and engaging storytelling.

But at some point during those formative years of digital journalism my opinion began to shift. Online journalism pioneers like Leah Gentry of the *Orange County Register* began to challenge the “shovelware” approach of newspapers, TV, and radio. It was common practice then to take stories that were designed for legacy platforms and shovel them onto the Web—often with few, if any, changes to adapt them to the medium. Gentry was one of the early advocates for new forms of storytelling. In the 2002 book *Journalism Online* by Mike Ward, Gentry was quoted in an interview as saying, “You need to look at the medium you’re working in and ask ‘What are the strengths of this medium and how can I use those strengths to help me tell my story?’ So you work with the medium instead of against the medium.”²

Gentry, along with other early digital champions like Ingle, envisioned a new breed of journalist, equipped with new gear and a new mindset that would allow reporting and producing of content in all sorts of novel ways, not merely for print. Ingle was the first editor to refer to his staff as multimedia reporters.

My photography assignments at the time took me inside fledgling media companies like Netscape, Yahoo, and Google. I began to realize I was at ground zero of something revolutionary. My photos of the offices of these start-ups often reflected the silliness of a culture, such as playground-sized slides instead of stairs, a replica of the Golden Gate Bridge made out of Coke cans in a corner office, beanbags for chairs, foosball tables, Nerf guns, free snacks, and Star Wars action figures lining cubicle walls. But the photos also revealed serious work was at play in the cubicles of Silicon Valley. Things

were changing fast, big ideas were in the air, and I wanted somehow to be part of the excitement. But how?

In the late 1990s, bandwidth expanded on the Web and the newshole shrunk (the amount of space available for content in the print newspaper). I found myself, along with my fellow photographers, glued to computer screens surfing the Internet in the photo department. Together we witnessed a new form of digital storytelling emerge: audio slideshows. Photojournalists from the *New York Times*, *Washington Post*, and MSNBC, among many others, were experimenting with mixing still images with sound. Recorded voices of subjects in photographs, and sometimes the voice of the photographer explaining the image, brought these images to life. There was a rawness and power to what I saw pulsing through a dial-up modem into my 13-inch computer screen.

Inherent in these new presentation forms was a level of control that I as the user had over the story. I was able to experience the narrative at my own pace—pausing and playing and returning to it on-demand. There also was a depth to the essays: an immersive quality that had a strong emotional pull. In the slideshows I felt transported into the scene, where I experienced the emotions of the characters whose photos I saw and whose voices I heard. And for the photographer there was the appeal of not having to limit oneself to a single image on a page; we could publish as many images as we deemed necessary to tell the story. In print newspapers, a photographer getting less than four photographs published from an assignment was standard. But with a smaller newshole, the average had begun to shrink to only a single image per story—a frustrating reality, if you're a photographer whose primary means to tell a story was images. At the same time, the Web was expanding as a seemingly wide-open canvas: an enticing force for a photographer whose voice was increasingly diminished in print.

One story that struck me was a Web project called “Bosnia: Uncertain Paths to Peace,” published in 1996 by the *New York Times* (at that time with a paltry 70,000 online subscribers). The interactive photo essay was produced by French photojournalist Gilles Peress in collaboration with Fred Ritchin, a professor at the Tisch School of the Arts and former *New York Times* photo editor. Ritchin described the project on his blog:

Nominated in 1997 for the Pulitzer Prize in public service by the *Times* and

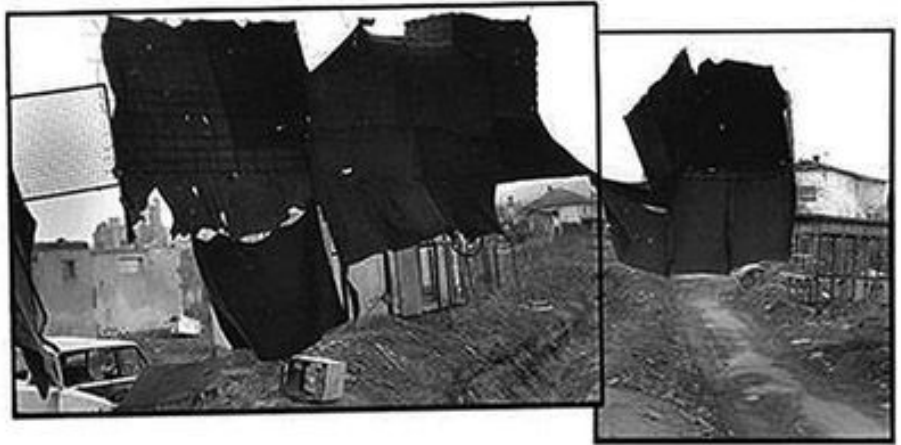
then immediately rejected because it was not on paper, “Bosnia: Uncertain Paths to Peace”—about an attempt to create peace after four years of horrific slaughter—used hypertext and photography to try and immerse the reader/viewer in the Bosnian post-war experience. We were, in effect, attempting to make the reader into both a collaborator and co-author (I called this approach “hyperphotography” in my book, “After Photography”). That is what this site tried to do: to explore the limits of journalism, and to expand the conversation. We need many more such experiments, and even more paths to peace.³

In photos, text, and several 360-degree interactive panoramas, Peress documented the last weeks of the bloody siege of Sarajevo. He added his own voice to the story with audio snippets embedded throughout the package in which he commented on his photographs or reconstructed experiences he had at the scene. A large portion of the multimedia presentation consisted of documenting the exodus of Serbs from the suburbs where the siege had been mounted. This multimedia photographic chronicle left me stunned. I will never forget feeling like I was floating in the package’s 360-degree panoramic photograph—created with a technology called QuickTime Virtual Reality (or QTVR), which was only a few years old at the time. With the open graves of the Ilidza Graveyard seemingly just beneath my feet, I could look anywhere in this 360 image, navigating a virtual reality scene with my mouse. There was an overwhelming sense that the slightest misstep with the mouse would send me plunging to the bottom of one of the six-foot-deep open graves.



Figure 2.1 Open graves of the Ilidza Graveyard. “Bosnia: Uncertain Paths to Peace,” *New York Times*, 1996

As I “moved” through this package I learned via audio and text that the graveyard shown in the 360-degree photo was where the Serbs had been exhuming their dead. Serbs have a strong connection to the land where their dead lie. Knowing that the land was going to become part of Bosnia, they concluded their dead could not rest in peace in this graveyard, and thus they began the process of exhuming loved ones. The interactive photo was a haunting experience that I felt could not be equaled in newsprint. The Web presentation had captivated me like never before. The package also was immense—more than 100 photographs—and expansive: maps, chronologies, a glossary, even a list of further reading material. It took me several hours and multiple viewings to take it all in. Also memorable was how the design defied traditional newspaper design conventions of the time, with a discordant layout that mixed photos in a collage-like fashion.



As we walk through the maze of improvised alleyways, trenches, behind giant hanging screens made of a patchwork of tarpaulin and colorful blankets shielding the passers-by from the eyes that kill, past the slits that seem like modernist gargoyles of a world where every angle has been computed by the centimeter, we are visiting the "sniper's world."

[Audio](#) (623k): Photographer's Comments
The Real and Virtual Worlds Around Sarajevo's Sniper



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[TO SUBURBS](#)

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Figure 2.2 "Bosnia: Uncertain Paths to Peace," *New York Times*, 1996

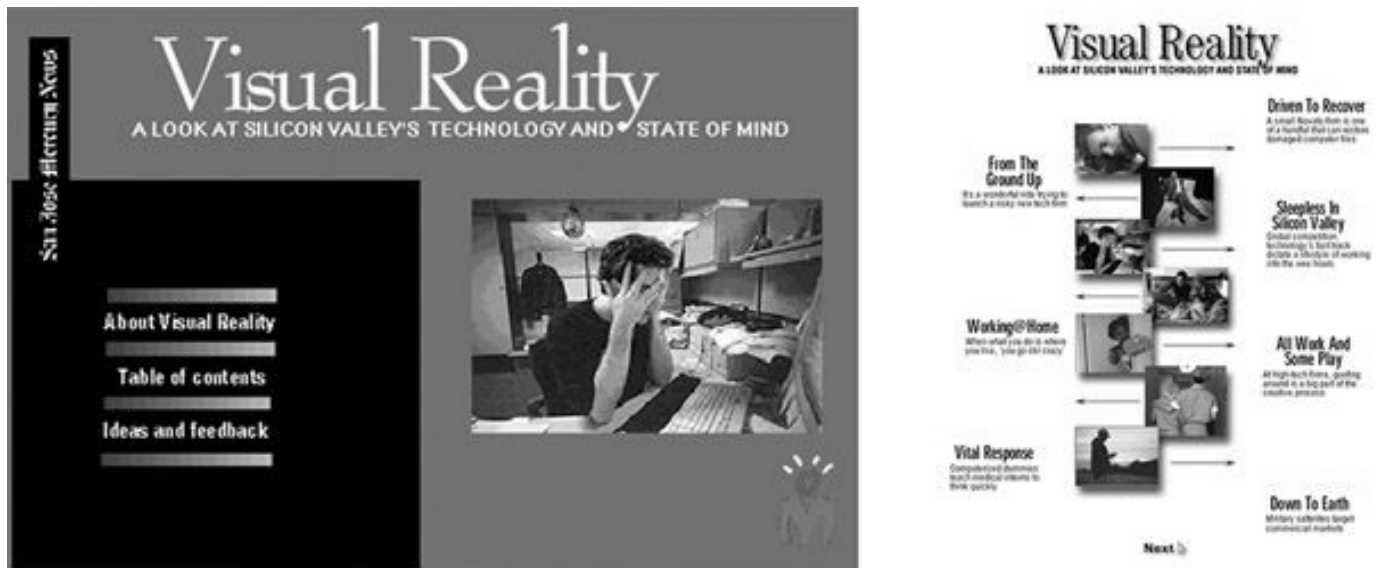


Figure 2.3 “Visual Reality,” *San Jose Mercury News*, 1996

Everything about this digital news package was new to me, and I had a profound foreshadowing of things to come in the world of storytelling. My photographs were published to the Web for the first time in 1996 in an online gallery called “Visual Reality,” produced by *Mercury Center* photo editor Scott DeMuesy. But it wasn’t until I experienced the *New York Times* Bosnia project that I was able to grasp the potential of this emerging platform.

This wave of excitement over multimedia storytelling helped form my career trajectory. In the years that followed, I transitioned into a full-time multimedia journalist—a great leap from that fateful day in the parking lot of the *Merc*, when I traded in my beloved film camera for a digital device. From that point on, a digital-first mantra dictate not only the form of my storytelling but also the tools I used to report those stories.

► Origins of the Digital News Package

Every story has a beginning, and anything worth exploring has an origin. But what exactly is this digital storytelling process, which now defines not only my career but increasingly my profession? Buried beneath the glamor of all of the current new forms of online presentation—scrolling parallax, interactive data graphics, or choose-your-own-adventure-style navigation—is a story about the origins of multimedia journalism. Exploring the evolution of online journalism presentation from its first forays helps one

gain insight into the current structure and application of multimedia presentation and design.

Digging up the Past

Somewhere in the world buried on a hard drive is an artifact that has yet to be uncovered, dusted off and studied, set in a glass case on display in a museum. A holy grail for us: the very first digital journalism multimedia news package.

The problem is that hard drives don't really fossilize—their components can only spin, whirl, and deliver information so many times before they break. It's no wonder that our first attempts at producing multimedia on the World Wide Web left nominal physical tracks.

In 1994 we assumed our digital breadcrumbs (URLs) would be easy to find years later. It's disheartening to find most of them devoured by the very technology that promised to archive them. The promise of the Internet as the ultimate digital shoebox didn't materialize until the formation of the Internet Archive in 1996, a nonprofit organization that indexed and saved the world's websites. Despite the Internet Archive's aim to keep digital-born materials from disappearing into the past, little if anything exists of journalism's first multimedia forays using the "Wayback Machine." It would take two more years, until the first Google index—which collected 26 million web pages⁴—before digital new packages began to surface. Even after this exhaustive crawl, there continues to exist a black hole between 1994 and 1995.

It has been well established that this digital decay and obsolescence is attributed to "link rot": the process by which hyperlinks point to web pages, servers, or other resources that have become permanently unavailable. Consequently, visual evidence for the first package remains extremely dicey. What to do? Leave them unearthed and move on?

It becomes apparent after a deep dive that as journalists, we failed to record our own history as it pertains to digital news packages. Just as the chroniclers of the "first draft of history" continue to debate who actually came up with that phrase (was it really *Washington Post* publisher Philip L.

Graham, or a 1943 book review in *New Republic*?⁵), we too failed to properly record our own beginning.

One of the earliest pioneers in the production of digital news packages, Brian Storm, founder and executive producer of the award-winning multimedia production studio MediaStorm, had this to say in reference to the history of multimedia journalism: “In the 90s there was a historical, seismic shift happening in online storytelling. Everybody wanted to do it, to work at it, be involved. So, to stop and write about it really never occurred to me. And as far as I know, no one else did either. I guess it’s that time for some of us.”⁶

This is an attempt at that first rough draft as witnessed firsthand through the eyes of a photojournalist. I must readily confess my photographic bias to the following evolution. Despite my personal history and visual proclivities, it’s hard not to see my own profession as playing a critical role in the evolution process.



The First *Rough* Draft

It’s imperative at this stage that we define exactly what we are trying to unearth: the digital news package (DNP). At its core, it’s commonly referred to as an in-depth feature story. While it’s still not a universal term in the online journalism community, we felt DNP better describes the types of stories we wanted to explore than more generic terms like “interactives” or “features.” These packages—formerly called a spread in newspaper jargon—are feature stories that typically go more in-depth on a topic, like the Sunday edition of your local paper. Online, they tend to consist of multiple pieces of media in order to express multifaceted stories through an organized layout, such as a video paired with text, or interactive graphics. During the mid-twentieth century, the golden age of the news spread, content was usually presented in a double-truck—two conjoined pages—with graphics, text, and photos.

Today, that same content reveals itself in various online forms. While length is not a prerequisite, most of the news packages described in this text tend to be more involved. Sometimes there is a narrative, other times it’s simply giving a more comprehensive look at an issue or topic.

The choices made in the early days shape the function and structure of today's storytelling. Of course, evolution alone cannot explain every maturation of the digital news package, but without considering its origins we cannot follow the story to its current chapter. Certainly there are more chapters to be written beyond this text, but this can serve as the first rough draft of the story.

► **The Way Wayback Machine**

From royal decrees carved in stone to ink on parchment to mechanical type, tracing the evolution of digital news packages is anything but simple. The genesis of DNPs cannot be found in the HTML code that created the World Wide Web; it is farther back in the history of visual design itself. Given the dynamic visual nature of its presentation, and its extension from both photojournalism and graphic design, the DNP's evolution exhibits many parallels to the history of newspaper design—rooted at the intersection of both communication and art. Any medium, especially one with roots in the Internet, develops a complicated and dynamic set of prehistorical relationships. We will start at the beginning, with an overview of the significant early influences, then expand to a more detailed exploration.

The journey into the history of the digital news package will take us through the first pictograph in 10,000 bc to its current state, certainly a vast timetable—we will traverse at lighting speed to get us to today's DNP.

► **Pre-Digital Story Forms**

From the moment we swipe through our Instagram feed in the morning until we scroll through the final paragraph of a *New York Times* story on our tablet reader at night, we can see how the marriage of words and pictures is deeply woven into our modern lives. Words and pictures—the basic building blocks of the DNP—have been intertwined as far back as 3100 bc, when humans drew imagery to communicate and inversely used words to paint images in the mind's eye.

Surprising as it may seem, immersive storytelling existed well before the invention of the computer. Its origins can be traced back from stone-carved figures of Egyptian religious rituals to the participatory dramas of the

Greeks. This is all to say that the modern digital storyteller has more in common with early ancient storytellers than credit is given. An apt testament to this form of graphic-design-as-communication can be seen in what is regarded as the oldest artifact known to combine words and pictures: the Blau Monument. The monument, an early Sumerian shale stone with etched writing and carved relief figures, is widely believed by archeologists to be a recorded land transaction. The carved figures represent the individuals involved in the deal.⁷ The stone's text lists commodities and other un-deciphered information. The assumption, according to historians, is that these items were exchanged for land. The Egyptians proved an enduring and profound relationship between words and pictures. It is actually the work of the ancient Egyptians that has come to embody the true origin of what we now refer to as visual communication design and one of the earliest precursors of the DNP. Modern producers of digital news packages may owe much to the graphic forms of early Egyptians, whose work was created on a strict grid system with well-balanced, harmonious, and minimalistic principles. It's important to note that the primitive layout design of the Egyptians eventually made its way in a more refined form—as it still had thousands of years to evolve—onto the pages of manuscripts in the medieval period well before the development of the printing press.

Participatory mythology rituals, reenacted by the Egyptians, played a vital role in the history of visual design. A collection of ancient Egyptian religious texts called the “Pyramid texts” dating from 2800 to 2400 bc are the oldest known religious texts in the world⁸ and contain dramatic reenactments in the form of religious rituals as performed by an entire community. While the exact ceremonial process remains unknown, historians believe that the rituals were private affairs among priests combined with public ceremonies. Ritual reenactment of myths was a common element of all preliterate societies, according to American mythologist Joseph Campbell in his influential work *A Hero with a Thousand Faces*.⁹ Carolyn Handler Miller, in her *Digital Storytelling*, puts forth the idea that these ritual reenactments are “a far more intriguing model of pre-digital interactivity than that of the old campfire stories”¹⁰ and have a great deal more in common with current modes of digital storytelling. As Miller states, the early ritual-based reenactments “involve the use of avatars; they are a form of role-play; participants interact with each other and work towards accomplishing a particular goal; and they play out scenes that can be highly dramatic and

even have life and death significance.”¹¹ For the Greeks these early forms of participatory storytelling evolved into classic theatre.

Hundreds of years later a highly complex, nonlinear, “multi-navigable” form of storytelling can also be seen in a medieval manuscript called the *Glossa Ordinaria*. The book is an extensively annotated Bible printed circa 1841. It contains complex commentary both in the margins and within the text itself. Modern scholars puzzle over how the *Glossa Ordinaria* was actually read, but Russell Sage College professor and author Dr. David Salomon uses the idea of the hyperlink to explain the nonlinear processes of reading the manuscript. This early form of hyperlinked reading “empowers the reader with freedom of choice, the freedom to explore the text at hand,”¹² thus conferring upon this ancient text a central characteristic of modern hypertext theory.

As you can see, even this hyper-lapse history tour reveals deep-seated strands of the participatory and interactive nature in our storytelling DNA. It appears that our ancestors were predisposed to creating “lean-forward” storytelling experiences. Lean-forward are stories that require active participation, or at the very least, a minimal presence or companionship with the storyteller—be it stunned silence or uproarious laughter. A live audience helped shape the story. Douglas Adams, best known as the author of *The Hitchhiker’s Guide to the Galaxy*, proclaimed “interactivity” as a common trait to storytelling. In a 1999 article in the *Sunday Times*, Adams wrote, “all entertainment was interactive: theatre, music sport—the performers and audience were together, and even a respectfully silent audience exerted a powerful shaping presence on the unfolding of whatever drama they were there for.”¹³ While many of our traditional forms of storytelling remain solidly in place, emerging technologies of the time, like the printing press, cinema, and television, ushered in the great “lean-back” or passive engagement style. The masses traded campfire songs for pre-recorded music on the radio and theatre-in-the-round for dark rooms with large tubs of popcorn in their laps. We became listeners, viewers, and at worst, couch potatoes.



A Modern Marriage: Pictures, Words, and Sound

In order to properly connect the digital news package to a more modern

online presentation (such as the aforementioned *New York Times's* DNP, “Bosnia: Uncertain Paths to Peace”), we have to continue our cursory historic traipse and explore its next closest predecessor, the newspaper.

The advent of the printing press saw the production of books from the mid-fifteenth century until the late eighteenth century as printing evolved into a master art form. Printers would take inspiration from their design ancestors and form an early remix-like movement, refining the classic elements of layout. What emerged from this primitive mashup are some of the common design elements of today—justified columns, margins, white space, mathematical proportions, and aesthetic guidelines governing the relationships between elements of lines, points, surfaces, and solids.

The modern presentation of newspaper layout developed slowly as American publishers appropriated the “newspaper” tradition from their European counterparts in the early eighteenth century. The American newspaper—both editorially and in design—was highly influenced by periods of politicization and commercialization. The newspaper as we know it today (although certainly not in appearance) was forged alongside advertising during the Industrial Revolution in order to sustain and promote mass consumption in a burgeoning consumer society. When newspapers appeared on the scene in early modern Europe in the 1600s and 1700s, it wasn’t common for news printers to combine images and words. The design tendencies of early newspapers were focused solely on typography rather than images. It’s no wonder the *New York Times* earned the nickname “The Gray Lady,” referring to its tendency to present more columns of typography than graphics.

Images played no major role in newspapers until the 1850s, when publications like *Frank Leslie's Illustrated Newspaper* found engravings to be the perfect novelty to attract readers’ attention. Today we might view this as an ancient form of click-bait—an eye-catching element to encourage people to read on.

Illustrations also had a very practical use in newspaper design: to provide a much needed visual break in the flow of text. Image reproductions of the time served as handmaiden to the almighty word. A definitive boundary was created and a separate and arguably unequal relationship emerged between words and images. Illustrations were most often framed with

overly decorative, unnecessarily ornate, and fluffy borders to indicate an ideological estrangement—a scarlet letter of design to distinguish them from the printed word. Illustrations often involved portraiture and scenic depictions of newsworthy events.

Printing at the time was a technical challenge requiring that several drawings be combined into a single continuous image (think of it as early Photoshopping). These panoramic scenes often spanned the length of a two-page center spread and thus the double-truck or news spread layout was born. These multi-image spreads would eventually serve as the foundational design motif for the golden age of the photographic essay layout in early-twentieth-century American magazines like *Life* and *Look*. It is the tradition of the photographic essay, whose origin I discuss later in the chapter, that form the basic building blocks of the DNP as it emerges in the late 1990s.



Figure 2.4 *Frank Leslie's Illustrated Newspaper, 1850s photos*

Despite their perceived inferiority to text, the use of illustrations during this pre-photographic period provided a firm foundation of visual design before the introduction of halftone printing.

On March 4, 1880, the *Daily Graphic* in New York published the first known full-tonal-range photograph in a newspaper via the halftone process. This new technique allowed images to be printed with a process that simulated

continuous tone imagery through using printed dots of varied size and space, thus generating a gradient-like effect.

While the halftone process removed a technological hurdle and made publishing photographs easier, photos in newspapers remained quite rare. Halftone photographs also suffered the same fate as illustrations, being relegated to enhancing text articles rather than taking center stage as a primary media form of communication. However, the tide began to shift with publications like the monthly magazine *Street Life* in London in 1876. Instead of images acting as a supplement to the text, photographer and publisher John Thomson pioneered the use of photographs as the predominant media form for communication, successfully combining photography with the printed word.¹⁴ Pictures were beginning to be defined on equal footing with text content. Thomson's photographic approach to documenting the lives of everyday street people in London is also credited with establishing social documentary photography as a form of photojournalism and laid the groundwork for the newspaper photojournalist as a profession.

By the early twentieth century, photographs had slowly begun to push illustrations aside as the de facto medium to represent life in its most visually "truthful" state. Photographs had moved from an exception to the norm. Photojournalism as a profession emerged in the 1930s, ushering in a golden age of documentary photography lasting through the 1960s. A convergence of several technological developments—smaller cameras, film on rolls, improved optics, flashbulbs—coupled with economic changes in the news environment like advertising, increased competition, and the emergence of modernist design principles led to visual shifts in print layout from newspapers. The world was changing and so was the presentation of news.

Photographs of this time became increasingly emotive and episodic, moving from merely politicians shaking hands, smiling, and looking into the camera (known as "grip-n-grin" in industry parlance) to a more day-in-the-life, naturalistic *vérité* style. Smaller cameras like the Leica, introduced in 1925, helped the photographer disappear into the background in order to document a more authentic style of photograph, which was often difficult with the weight and intimidation of previous larger cameras like the Speed

Graphic. This new photographic freedom combined with the emergence of a pictorial press, most notably *LIFE* magazine (established in 1936 by magazine magnate Henry Luce), propelled photography to a legitimate presentation form to convey newsworthy events. Luce's goal was to "harness the mainstream of optical consciousness of our time,"¹⁵ thus ushering in an era of visual innovation in the form of the photographic essay. So triumphant a means of communication was the camera at the time that Librarian of Congress and poet Archibald MacLeish, in a telegram to Henry Luce on June 29, 1936, said, "The great revolutions of journalism are not revolutions in public opinion, but revolutions in the way in which public opinion is formed. The greatest of these, a revolution greater even than the revolution of the printing press...is the camera."¹⁶

Printed in the inaugural issue of the groundbreaking *LIFE* magazine was the work of 32-year-old photographer Margaret Bourke-White. Her cover story for the issue is considered the first true photographic essay printed in America. Bourke-White's assignment was to photograph the chain of dams in the Columbia River basin in northern Montana. There, Bourke-White would photograph the construction of the world's largest earth-filled dam, and the resulting image would become the first cover of *LIFE* magazine. But it would be the images she produced of the laborers and inhabitants surrounding the Montana boom town that would make the most impact. Bourke-White recalls, in her 1963 autobiography, *Portrait of Myself*:

It was a pinpoint in the long, lonely stretches of northern Montana so primitive and so wild that the whole ramshackle town seemed to carry the flavor of the boisterous Gold Rush days. It was stuffed to the seams with construction men, engineers, welders, quack doctors, barmaids, fancy ladies and, as one of my photographs illustrated, the only idle bedsprings in New Deal were the broken ones. People lived in trailers, huts, coops anything they could find and at night they hung over the Bar X bar.¹⁷

Bourke-White's stark, revealing, and emotional images of the inhabitants of this boom town laid the foundations of what we know today as the photographic essay. It's important to note that Bourke-White's images were presented not in the hodgepodge, haphazard fashion typical of photo layouts of the time, but through a thoughtful collaboration between photographer and editor, with particular attention paid to image

sequencing and layout. Bourke-White's photographs of daily life were carefully crafted as a series of images with the express intent to tell a story and evoke emotion. So moving was her photographic portrayal that the editors themselves were taken by surprise and devoted a bit of the opening pages of the inaugural November 23, 1936, issue to Bourke-White's backstory:

If any charter subscriber is surprised by what turned out to be the first story in this first issue of *LIFE*, he is not nearly so surprised as [we] were. Photographer Margaret Bourke-White had been dispatched to the Northwest to photograph the multimillion dollar projects of the Columbia River Basin. What the editors expected were construction pictures as only Bourke-White can take them. What the editors got was a human document of American frontier life which, to them at least, was a revelation.

What the editors did not grasp at the time was the fact that they crafted the first true photographic essay. Maitland Edey, editor at *LIFE* from 1945 to 1956, wrote, "More modest efforts had been attempted in European picture magazines, but no editor previously had tried to master a large subject with a comprehensive take by a single photographer, using enough pictures to tell an ambitious several-threaded story."¹⁸

The form acquired an official title in March 1937 when Luce himself stated that the written essay was no longer "a vital means of communication. But what is vital is the *photographic essay*."¹⁹ The editors of the magazine were so committed to this form of visual communication that the term "the photographic essay" appeared in the table of contents for the first time toward the middle of 1937. The form became a common vernacular in the structure of the magazine, expanding the photographic territory on the printed pages of *LIFE* and other magazines, thus extending photography's reach in a modernist society. This new photographic freedom combined with less laborious printing methods ushered in a golden age for printed visual storytelling for the next thirty years.



From Stills to Moving Images

As photography rooted itself in society with the help of *LIFE* magazine, another technological development would bring profound change, moving

us further from a print-dominated culture to a world influenced by moving pictures coupled with sound recordings. Although moving images in the form of early cinema have their roots as far back as the 1890s, it wasn't until the introduction of sound recordings married to moving images in the early 1930s that a truly new hybrid medium was born. For the first time in history, verbal and visual mediums were paired, and one of the most influential technological developments of visual culture was born: television.

Canadian philosopher of communication theory Marshall McLuhan, in his most widely known work, *Understanding Media: The Extensions of Man* (published in 1964), coined the phrase “the medium is the message,” inferring that content cannot be easily separated from form. McLuhan noted, “The personal and social consequences of any medium—that is, of any extension of ourselves—result from the new scale that is introduced into our affairs by each extension of ourselves, or by any new technology.”²⁰ This newly formed symbiotic relationship of image and sound would prove to be an unbreakable bond and bear a close resemblance to a DNP before the advent of the computer.

Reinventing the Wheel

In 1965, four years before the Advanced Research Projects Agency Network (ARPANET) carried its first packets of information across computer networks in what would later become the Internet, the Eastman Kodak Company was busy inventing a new form of pre-computer-based multimedia presentation. This photographic presentation tool would give photojournalists their first experience in sequencing multimedia stories and helped shape early narrative presentation forms of the DNP.

The Carousel, first patented in 1965, was a round tray that held several 35mm photographic slides and allowed a room full of friends and relatives to time travel and view vacations and other important photographic memories on a large screen in the comfort of the family living room. If this sounds nostalgic, it should. This description was also a popular reference by the TV series *Mad Men*, a show based in the 1960s about a group of advertising executives who try to come up with innovative sales pitches for products. In one episode, the series' main character, Don Draper, comes up

with the name Carousel, in place of the Kodak executives' original name for it, the Wheel. "This device isn't a spaceship, it's a time machine. It goes backwards, and forwards.... It takes us to a place where we ache to go again. It's not called the wheel, it's called The Carousel. It lets us travel the way a child travels—around and around, and back home again, to a place where we know we are loved."²¹

These pre-digital slide show presentations became a mainstay for professional photographers, particularly during conferences held by the National Press Photographers Association (NPPA). In hushed and darkened hotel ballrooms all across the country, multiple larger-than-life images were projected simultaneously from multiple carousels, accompanied by music and narration emanating from an electronic tape deck. The images and photographer's narration were perfectly timed to musical scores and slide transitions; it was emotional and cinematic. Hundreds of attendees filled rooms to standing-room-only capacity as the award-winning work of the nation's most celebrated photojournalists was presented to rapt audiences. Audio slideshows became the standard convention for presenting an extended body of photographic work. Slideshows with audio were highly anticipated, and photographers from the NPPA turned these projections into a niche art form.

Reflecting on these pre-digital multimedia presentations, Geri Migielicz, formerly the director of photography at the *San Jose Mercury News*, said,

As a profession we've been making slide shows since Kodak invented the projector. I remember the one I put together in 1990 when the Mercury News won the Pulitzer Prize for news reporting on the Loma Prieta earthquake. We didn't call it multimedia, but the photo department at the Merc was always cranking out audio slideshows on a dual-projector system. It was my first professional foray into multimedia and I got poet Francisco X Alarcon to read one of his magnificent poems about the earthquake into a cassette tape recorder in the living room of the house where I lived. I used this recording of his recitation and some music as a backdrop for a couple hundred slides. I recorded Francisco's poem with a mic I bought at RadioShack and plugged it into the dual cassette audio recorder of my home stereo. There was no such thing as Garageband at the time. I then added an instrumental track from a vinyl or CD. Then I sequenced photographs from

the Mercury News' coverage using a multi-projector dissolve unit. The presentation combined prose, poetry and music to showcase photojournalism. It had a power all of its own. The photographs, simultaneously experienced with voices from the rubble, transported me (and I hoped viewers) to another level of visual experience. This felt like a new form that moved beyond the photo story in print. I presented it at conferences all over the country, but few people saw it because it wasn't published, there was no World Wide Web, at the time, you had to be in the room to see it. Really, it was another form of storytelling. These shows had pace, timing, mood and they had flow. They were pretty sophisticated presentations. So if you think about it, as a profession, we've been projecting images on our own private cave walls before we could share them with the world on the internet.²²

Soon, Migielicz's dream of transporting viewers to the rubble of the Loma Prieta quake and sharing these presentations with a wider audience would manifest itself in another set of technological developments in the rise of visual culture, the computer and the World Wide Web.

Bits and Bytes

The origins of computers can be traced back as early as the 1940s, but their availability and popularity didn't reach prominence until the development of the personal computer in the 1970–1980s. During this time, the news media was beginning to experiment and invest heavily in publishing platforms beyond ink on paper. From the late 1970s to the mid-1980s the industry explored delivery system mashups in hopes of bridging the telephone and the television into a new platform to deliver news into homes. Companies like Knight Ridder, CBS, NBC, and the Times Mirror Company began to see the transformative power of the digital delivery of news. Gerald M. Levin, the former chairman and CEO of Time Warner, explains his early motivations to create a new platform: "After we started HBO, I kept thinking about ways of delivering news into the home...because I was taken by Life Magazine and pictures," said Levin in an interview with Nieman Lab's special report titled "Riptide," about the historical collision between journalism and technology. "I asked one of the engineers at Manhattan Cable, if there was a way you can get a news wire into the home? Let's get pictures into the home because... 'To see life; to see the world,' that's

what Henry Luce said about Life.”²³ What emerged from Levin’s drive for interactivity was a short-lived project called Time Teletext. The process itself was a means of sending pages of text and simple graphics to the television screen.

A more notable early venture by the industry was a service offered by Knight Ridder and AT&T in the early 1980s called Viewtron. Despite being named by *PCWorld* magazine as one of the biggest project failures in information technology (IT) history,²⁴ the service—which provided interactive content on a television, using modems to send data in both directions—was eerily similar to what would emerge more than a decade later as the World Wide Web. The service offered e-commerce, chat, news, and games.

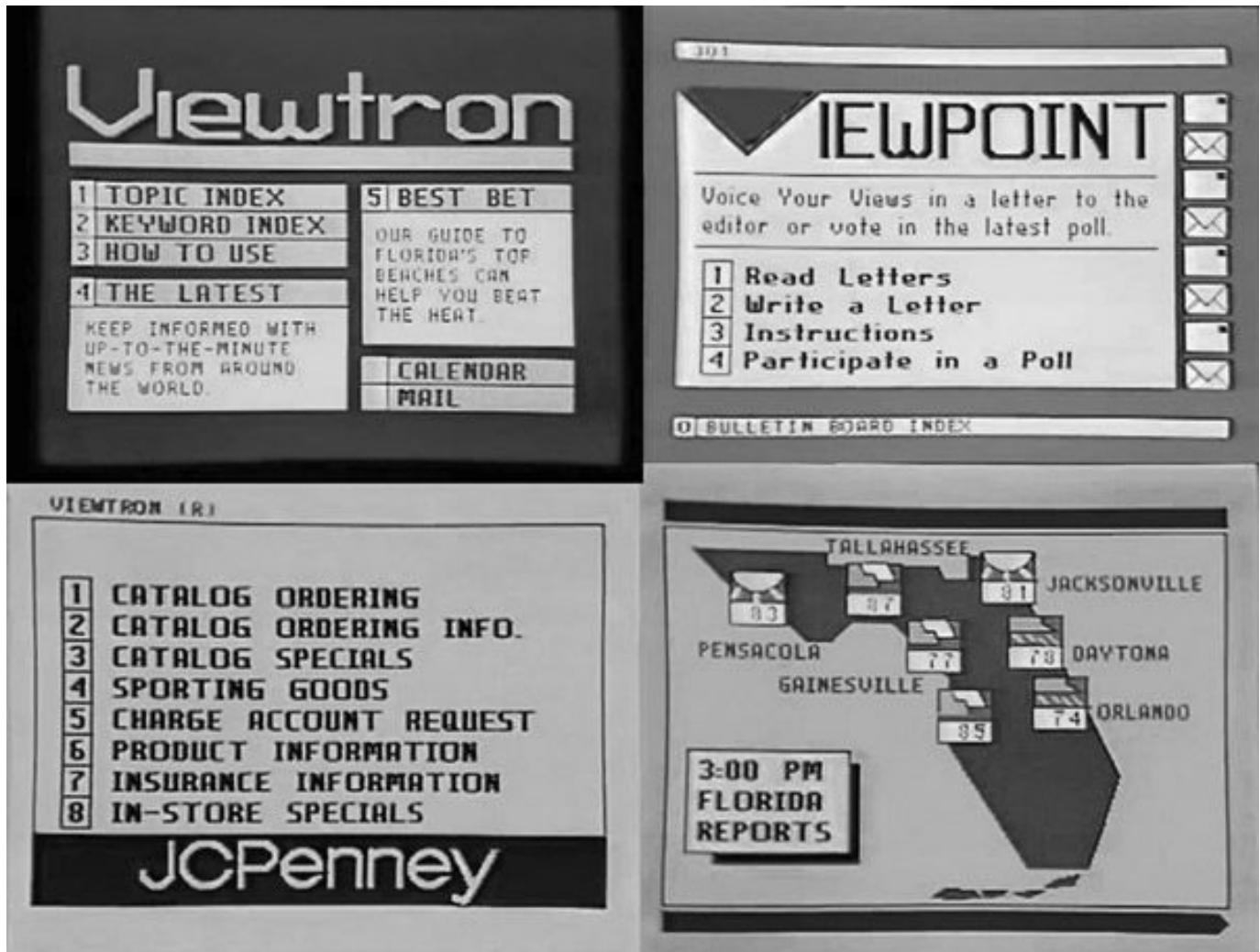


Figure 2.5 Viewtron, by Knight Ridder and AT&T, 1983–1986. Four photos by Philip Bump, reproduced via Creative Commons license CC-BY-

SA.1.0

Viewtron ended in late 1985 when Knight Ridder decided to abandon the service and concentrate on its core—the newspaper. Early analytics had revealed that 80 percent of Viewtron users were spending most of their time using the service’s e-mail, message boards, and educational areas, rather than consuming news content. This proved a losing proposition for Knight Ridder as it was spending 80 percent of its budget to create news content. The education editor for Viewtron at the time, Rita Haugh Oates, put it this way: “That’s when KR [Knight Ridder] executives decided that this was NOT a news medium and they wanted to continue to be a news company.”²⁵ Despite the industry’s explorations at the cutting edge, their experiments came too early. According to Philip Meyer, director of news and circulation research for Knight Ridder, in an interview with Poynter about remembering Viewtron, “Timing is everything! Our vision was ahead of the technology. The ways we found to add value to news and advertising through electronic distribution were, however, right on target and anticipated much of what the Internet does today.”²⁶ After incurring significant economic losses, Knight Ridder turned off the interactive services, and a period of disinvestment in interactive technology was felt industry-wide. Capable multimedia platforms would only later emerge in the form of the personal computer and desktop publishing.

► Digital Pagination and Desktop Publishing

The proliferation of the desktop computers in newsrooms across the country had a significant impact on the production process of news content. Newsrooms moved from analog- to digital-based operations. Newsrooms went from the hammering clatter of typewriters to the soft clicks of plastic keyboards. The pagination process moved from physically pasting up paper layouts on a large composing table to page-layout software like QuarkXPress and later Adobe InDesign. Computers in the newsroom allowed writers to enter copy via a terminal and editors to call up and rapidly edit those stories on-screen. Once the story was edited, it was saved and accessed instantaneously, along with any corresponding photos and graphics, by a page designer, who would then manipulate the assets into a complex page layout using WYSIWYG (what you see is what you get) software. All of this was made possible by the PC’s more user-friendly graphical interfaces

popularized in the 1980s by the Apple Macintosh computer.

The rise of the PC and desktop publishing software not only gave way to a more simplified page design workflow; it spawned more tools for graphic designers and photographers to create content faster, just as the value of immediacy would dominate in the coming era of the World Wide Web. The addition of detailed charts, diagrams, graphic explainers, and maps became a catalyst for informational graphics in newsrooms. Later, these would make their way online in the form of early digital news packages. Desktop publishing software spawned a modular design revolution, spurred in part by *USA Today*. Jennifer George-Palilonis described *USA Today*'s goal this way in her 2006 book, *A Practical Guide to Graphics Reporting*: "Its editorial mission was simple: cater to the time-starved reader with tightly edited story packages in an entertaining and easy-to-read format."²⁷ What resulted were shorter stories and a plethora of color graphics in place of the more common longform, text-driven packages. Printed newspapers, largely influenced by *USA Today*, were taking on a more visual appearance that would eventually make its way online.

Another major change worthy of mention during the years preceding the Web came in the form of digitizing and editing photographs. Gone were the days of darkrooms and theatrical hand gestures to "dodge" and "burn" areas of an image. Dodging and burning are techniques used during the printing process of photographs to manipulate the exposure by blocking the light from an enlarger (which looked like a large projector pointed downward), often by using one's hands or special tools. Enhancing a photograph's exposure, color, and sharpness—aspects that once took years of practice and skill, and often hours of work in the darkroom—could now be completed with a few clicks of the mouse using Photoshop.

It's clear that the arrival of desktop publishing and the introduction of software, like QuarkXPress and Photoshop, ushered in a new generation of graphic designers and photojournalists with an unprecedented level of production prowess. This all-encompassing electronic/digital workflow left the industry with designers, photographers, and reporters poised and prepared for experimenting with new storyforms as the impending shift toward online content loomed.

The World Wide Web

While the invention and introduction of PCs is critical to our DNP evolution, it was the emergence of the Internet and the Web that would offer newspapers a platform to create new digitized and interactive multimedia forms.

In 1989, Tim Berners-Lee created the critical ingredients of the Web, paving the way for online digital storytelling. Then in late 1992 the National Center for Supercomputing Applications (NCSA) at the University of Illinois at Urbana-Champaign released the first graphical Web browser, Mosaic. The browser was co-written by Marc Andreessen, who, a year later, would help launch a refined version dubbed Netscape Navigator. Netscape's success from the mid-1990s until its eventual demise in 2002 gave people an easy portal in which to view content on the Web.

In 1994, author Gary Wolfe described the revolutionary nature of the Mosaic Web browser and its power to transform information consumption in an article in *Wired* magazine:

When it comes to smashing a paradigm, pleasure is not the most important thing. It is the only thing. If this sounds wrong, consider Mosaic. Mosaic is the celebrated graphical “browser” that allows users to travel through the world of electronic information using a point-and-click interface. Mosaic's charming appearance encourages users to load their own documents onto the Net, including color photos, sound bites, video clips, and hypertext “links” to other documents. By following the links—click, and the linked document appears—you can travel through the online world along paths of whim and intuition. Mosaic is not the most direct way to find online information. Nor is it the most powerful. It is merely the most pleasurable way, and in the 18 months since it was released, Mosaic has incited a rush of excitement and commercial energy unprecedented in the history of the Net.^{[28](#)}

While several newspapers were feverishly scrambling to gain traction online and before “surfing the Internet” became a common phrase across the country, early pioneers like Brian Storm, then a graduate student at the University of Missouri; Andrew DeVigal, then a producer at

Chicagotribune.com; and people at the Mercury Center—among many others—were hard at work creating the first online forms of digital storytelling.

► The Coming Storm

In 1993 Brian Storm was assigned to cover the effects of a recent flood on local farmers as a staff photographer for the *Columbia Missourian*—a community newspaper staffed by students at the Missouri School of Journalism. After spending more than eight hours in the field making photographs, Storm headed back to the office to develop his film. After printing some of the images, he sequenced several of them into a full-page photo essay layout that visualized the effects of the severe weather on the local farming community. Excitedly, Storm presented his layout to his editor, saying, “I think we’ve got real insight into what’s happening with the flood and its effects.” The editor responded, “This is great, but we can only run one picture with a two-line caption, that’s what we have room for.” According to Storm, that’s the day he “swore off newspapers.”²⁹

Frustrated by leaving so much of his photo essay unpublished and feeling “terribly denied in that moment,” Storm was about to discover an alternate passion and outlet for his photojournalism. He recalled with detail the moment his college roommate inserted something called a CD-ROM (compact disc read-only memory) into a Macintosh computer. “I didn’t know anything about computers or any of that stuff at the time,” said Storm. As the screen went black, words appeared on the screen suggesting that the viewers prepare themselves for a 30-minute experience. Intrigued, with eyes wide open and attention glued to the screen, Storm was presented with a stunning black-and-white portrait of a couple accompanied by a deep voice emanating from the tiny speaker. “Let me introduce you to my parents,” it said. Forty seconds later, after more photographs slowly faded on the screen, a haunting piano score began as a very romantic image of a couple engaged in a tender kiss filled the screen. The voice providing the narration to this impactful CD-ROM experience, entitled, “I Photograph to Remember,” was produced by renowned photojournalist Pedro Meyer. The 30-minute multimedia presentation was a stunningly personal family memoir about the death of Meyer’s parents. Produced in 1991 by Meyer and Bob Stein of the Voyager Company, it is widely considered the first photo-

driven multimedia CD-ROM presentation to wed nearly 100 documentary photographs with sound.³⁰

While viewing this new media benchmark, Storm immediately realized he was experiencing uncharted territory. Computers were normally used to crunch numbers and edit text-driven documents, not transmit emotional audiovisual content. Storm was being presented with a complex and deep emotional experience via a computer, and he remembers, “That was an extremely impressionable moment, having just been denied a voice at the paper and seeing the potential in this CD-ROM, my mind was blown and I remember thinking to myself, this is it! This has the depth, like a real photo essay, but it has context and narrative sound, it was just beautiful!” The next day, Storm sought out a professor at the University of Missouri, where he was enrolled as a graduate student, and inquired about how he could learn to create CD-ROMs. According to Storm, a few weeks later, he received a piece of software called the Apple Media Kit from his professor’s contact at Apple computers. “I had some pretty amazing experiences with that software. I would spend fifteen to twenty hours trying to write some code to make it do what I wanted, like fade an image. Finally, I’d compile the code and it was like my first magical experiences in the darkroom when I dropped a print into the developer and an image magically appeared.... I was hooked in that moment. I thought to myself, this is incredibly empowering and it can take me in all kinds of new directions.” Storm would go on to help produce four CD-ROMs for the University of Missouri’s prestigious Pictures of the Year (POY) competition. Storm’s next steps, along with others in the industry, would have a profound and lasting impact on the evolution of the DNP.



The Full Impact of the CD-ROM

While digital storytelling would soon find a new ecosystem on the Web, the impact of early CD-ROM presentations—despite their relatively short-lived lifespan—can still be felt today. It is important to step back and examine the influence these compact discs would have on the presentation of digital news packages on the Web before continuing to the next evolutionary phase of early pioneers like Brian Storm.

In a 2001 blog post marking the twentieth anniversary of the first public

viewing of “I Photograph to Remember,” Bob Stein, founder of the Voyager Company, described its impact: “When Pedro Meyer first showed I Photograph to Remember at the Seybold Digital World Conference in Beverly Hills in 1991...you could hear a pin drop in that Hollywood Conference hall. As people walked out at the end there was an unusual hush in the room...business wasn’t returning immediately to normal. People were processing something new. No longer simply a productivity tool or game engine, the computer going forward would be at the center of the most deeply personal experiences of our lives.” Stein would end the post by noting, “A few months ago a famous Silicon Valley CEO said to me: ‘Remember when you presented Pedro Meyer’s I Photograph to Remember for the first time? That was really a turning point for all of us. It really changed our understanding of what computing could be about.’”³¹ The power and enduring quality of Meyer’s work and that of others at the time, like Rick Smolan (a former *TIME*, *LIFE*, and *National Geographic* photographer), who produced another early and influential CD-ROM “From Alice to Ocean,” lies in their sophisticated and cinematic fusion of multimedia components.

While Meyer’s work would follow a classic linear structure in a photojournalistic tradition seen in magazines like *LIFE*, Smolan’s work on “From Alice to Ocean” and his subsequent project, “Passage to Vietnam,” would take the medium a step further by offering a nonlinear structure via multiple entry points and alternate story paths. In creating “From Alice to Ocean,” based on his images for a *National Geographic* assignment that documented Robyn Davidson’s 1,700-mile trek across the Australian outback, Smolan and his team used the most innovative software to date, Macromedia’s Director. The software allowed users the ability to link text, graphics, images, video, sound, and animation on a time line–based interface. The software used a movie metaphor, with the user as the “director” of the experience. In a 1993 *New York Times* article titled, “Technology: The Tools of a New Art Form,” Smolan said, “When we put the interactive CD together it gave us an incredible feeling of freedom, because we were able to give people many different paths through the story.”³² Smolan was one of the first photojournalists to venture into the unexplored digital narrative structure of nonlinear, documentary-based presentations. In reference to his use of interactivity as part of his CD-ROM experience, Smolan was cited in a 1997 article by Charles Williams, “Historical

Photographs and Multimedia Storytelling,” as saying, “We gave people the opportunity to listen to Robyn or interrupt her—to have a conversation with her. There are multiple paths through the same story. Readers can follow their own lines of curiosity.”³³

In broad terms, what’s interesting about Meyer and Smolan’s CD-ROM packages is not only the control a user would have over the experience, but also the lineage these compact-disc-driven packages owe to the projector-based audio slideshows mentioned earlier in the chapter. It’s enough to note that both of these influential CD-ROMs were created by photographers, but there are other striking similarities. For instance, the fading of images on screens, both computer and projector, and the ability to start the narrative on any particular photo in the slide tray (Carousel) or click any particular image on the computer screen are common characteristics of both analog and digital presentation formats similar in nature to projector-based audio slideshows.

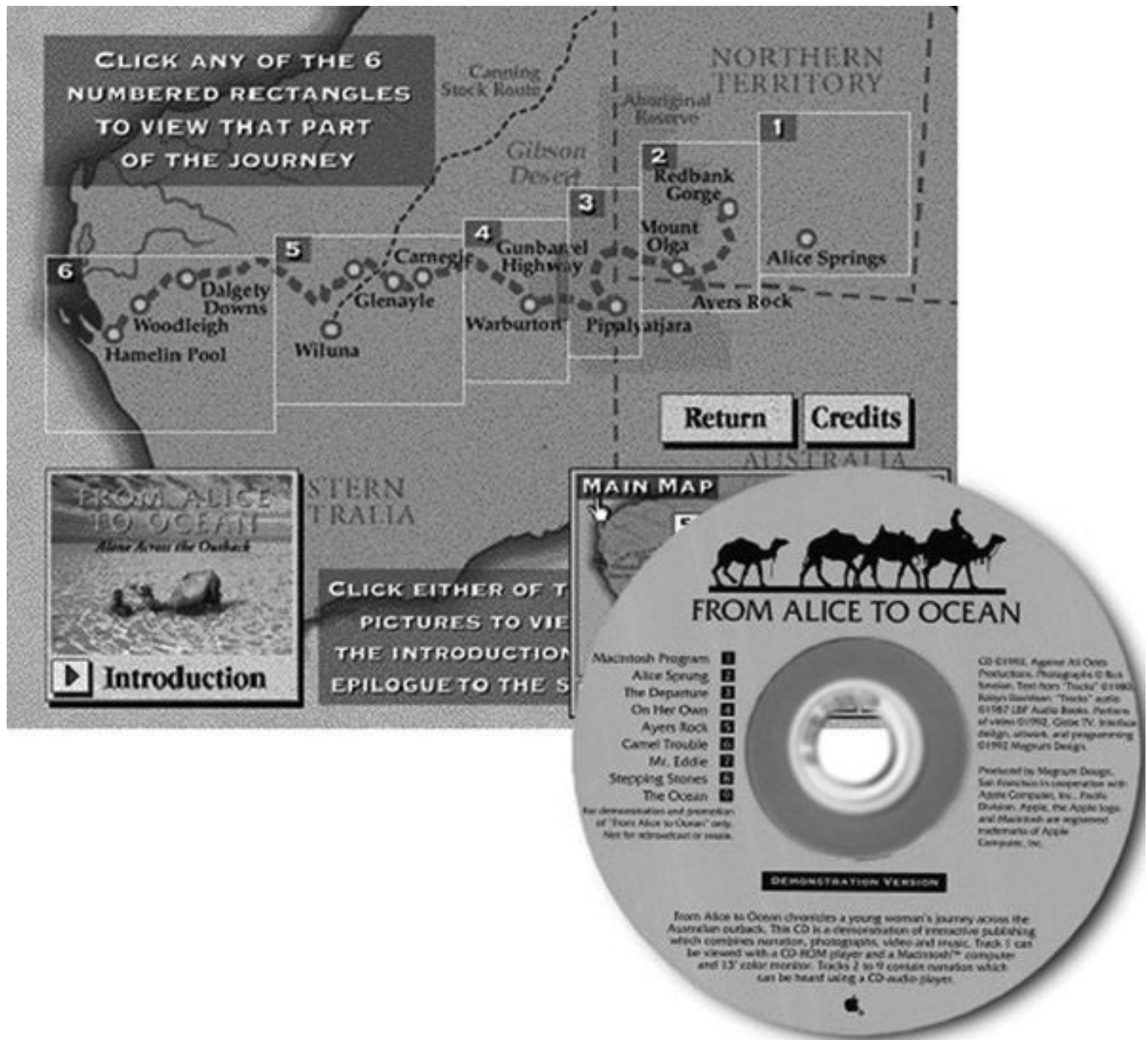


Figure 2.6 “From Alice to Ocean: Alone across the Outback,” 1992

In recalling the early years of his career in an interview with the authors, Brian Storm would also make the observation, “Everything is built on top of other ideas. There isn’t anything about what was happening at the time that hasn’t been done before. I think from a storytelling perspective, there were people doing these epic multi-tray slide presentations, trying to sync music to photos and documentary filmmakers had been doing that forever, but what Pedro did on that CD-ROM, that was the magical moment, an evolution.”³⁴

In contrast, Meyer's project resembles a single-projector-based presentation with the photographer narrating the work, while Smolan's resembles a more complicated multi-projector presentation with several narrators, lots of buttons, graphics, maps, and video snippets. The path forged by photographers in darkened conference rooms using Kodak slide projectors to computer screens in poorly lit college dorm rooms was complete.

During this time before the introduction of the Web, these discs became a hot commodity. Their popularity would only last about five years, and they spawned several influential games and educational titles for the entertainment industry, like *Myst* and *The Oregon Trail*. The news industry also recognized the potential benefit in packaging content into CD-ROMs.

In late 1993, *USA Today* released what it called a dynamic time capsule in the form of a CD-ROM: "USA Today, The '90s, Volume I." The packaging inside the plastic jewel case promised a multimedia treatment of key stories and topics, including full-color pictures, graphics, maps, and sound clips bringing the news to life. Users of the disc would also have a fully indexed and cross-referenced database giving them access to more than 100,000 *USA Today* stories from January 1990 through August 1992.

In that same year an industry-wide group of magazine editors was brought together in the basement of the Time-Life Building in New York to determine the feasibility of digital delivery of content via CD-ROMs. Among the elite group was *National Geographic* director of photography Thomas R. Kennedy, who would describe this development effort, dubbed Open Project, as a rapid prototyping-like session, using all the most cutting-edge digital tools at the time to create a magazine and CD-ROM in one week. While participating in the project, Kennedy says he quickly became aware of how valuable sound could be as an extension of still photography. Furthermore, he said, "Instead of depending solely on captions to explicate the photograph, we could hear from the subjects themselves or listen to natural sound from the situation as it was being recorded. It also occurred to us that someday soon we could be mixing photography and audio with video to tell richer, more complete stories in the service of journalism."³⁵

Within five years, Kennedy would leave *National Geographic* and lead multimedia efforts at the *Washington Post*. Kennedy and others extended the lessons they learned from their foray into CD-ROMs and further

increased their influence on photojournalists, designers, and early producers of the next major shift to *online* news narratives.

In hindsight, the prevailing lesson from these early digital experiences seems to be one of distinction. The realization was that combining multiple media experiences into a single, self-contained multimedia package like a CD-ROM is to acknowledge the creation of a completely new technological storytelling platform. A new storytelling form demanded a new attention to production values, structure, and presentation. Early devices, like the videotex service Viewtron from Knight Ridder, or the TimesFax newspaper service from the *New York Times*, relied on existing infrastructure like television or phone lines and were essentially different ways of distributing existing news forms. However, it was the compact disc in conjunction with the personal computer that made a clear divergence from traditional media like the television or the telephone. What the CD-ROM—and eventually the Web—proved was that there could be a merging of distinct media types (photos, words, audio, video, graphics) into a single digital presentation. It was different than information delivery; it was something entirely new: a cinematic and *interactive* package. This was the birth of multimedia journalism. The evolution up to this point shows that users and disseminators of information have the unique capacity to create and manage multiple forms of self-expression.

While the content creators of compact disc were finding creative ways to link and package multimedia narratives together, almost simultaneously the Web emerged. It became apparent in 1994 with the launch of Netscape Navigator that the Web would become a more flexible environment for creation and distribution of multimedia content. Although the compact disc's time in the spotlight was about to end, its glow would remain.

This brings us back to Storm and his seemingly clairvoyant personal journey. From his personal frustrations when a newspaper failed to appreciate the depth of his photography, Storm discovered a new outlet in CD-ROMs. Now, a new discovery—the distribution power of the Web.

During an annual Pictures of the Year (POY) conference in Washington, DC, where the world's greatest photojournalists gather for presentations, Storm had an epiphany: "It was one of the most important days of my life," explains Storm. "I saw photojournalist Anthony Suau present 80 pictures

from his portfolio—just amazing pictures—and at the end somebody asked him how many photos were published and he said *one*.... This guy is an incredible photographer and I'm never going to be as good as he is. There is no reason for me to be a photographer with the likes of him around. I knew right then and there that I needed to stop trying to be a photographer. I needed to stop, and instead focus one hundred percent on helping guys like this get their work published.”³⁶

After leaving the conference and making his way back to Missouri, Storm conceived the idea for a new kind of media company. He called it MediaStorm. “That was the company I was going to run. I was going to help photographers put these kinds of projects together because many of them didn't know how, but I did. That was the day I put the camera down. I knew I was never going to shoot again.” Storm would instead focus his passion on publishing, and his timing couldn't be better. Within weeks of returning to the University of Missouri, Storm described a meeting that ultimately changed the course of his career:

A buddy of mine came into the media lab at Mizzou—which was really just three Macintoshes—but it's the place I would spend countless hours. He came by with a floppy disk with a piece of software on it, so we loaded it up. It was Mosaic. The first web browser I'd ever seen in my life. And he [Storm's friend] says, “alright man, we are sitting on a computer in Champaign Illinois right now.” I was like, “what are you talking about? No we're not, we're in the Mizzou lab.” He says, no, we are actually reading files off a computer that is in Illinois and we're in Missouri. I was like, wow, that's amazing! I sat there for a minute and I swear to you, it was probably at least a minute that I sat there with my mouth open at what he was showing me and I finally said one word to him...distribution! I knew this was going to change distribution.

Storm was adamant that the role of his production company would be to leverage digital forms to surpass the restrictive nature of newsprint and television. The boundaries of the Web were endless, and its distribution could reach far beyond the geographic restrictions of traditional media.

What I had seen happening was that we had photographers like Suau who were showing 80 of his best images to a bunch of photographers. He was preaching to the choir! The only people who had access to his work were the

people who happen to be at that particular photo conference. I felt the same way about the work I was doing with the CD-ROMs. I spent ten months producing a Pictures of the Year CD-ROM that we pressed a thousand copies of and guess who got those? Photographers. I was preaching to the choir, so when the Web came, bam! It was crystal clear to me that we should switch to the Web even though there were incredible limitations in bandwidth at the time...but I just felt like the Web was going to uncork distribution.

Storm wasn't the only one to see the Web's potential as a tool for multimedia storytelling. The Microsoft Corporation out of Redmond, Washington, was preparing to form an online news service called MSN—originally the Microsoft Network—and plucked Storm from his studies at Mizzou and made him employee number 11. Storm recalls the early days in Redmond: “I got there in July of 1995. I'll never forget showing up at Microsoft and not even having a computer for about four days. There was no mandate, no philosophy about what our online approach should be. MSN was just like, GO!” Microsoft named Storm, then 24, director of multimedia in charge of packaging photos, video, and audio, leveraging his unique presentation styles gleaned from the hushed photo conferences and his experiences producing computer-based CD-ROM interactives. Within a year, MSN partnered with NBC News and became MSNBC.com. During Storm's tenure at MSNBC, from 1995 to 2002, he created and launched two influential digital news packages: “The Week in Pictures” and “Picture Stories,” which were audiovisual photojournalistic slideshows. “People loved it,” said Storm. “People kept telling me they hadn't seen work like this before, I said ‘I know, I've seen it at conferences, but no one is publishing it.’” The Web gave these visual stories reach, with 25 million unique readers a month, doubling to 50 million by 2001. Storm's influence continued to spread as he presented his ideas on the impact of new media on photojournalism, and, more importantly, he shared his workflow and presentation style for multimedia packages at dozens of conferences around the world.

At this juncture let's take a look at how some media organizations innovated during this period in order to shape digital storytelling.

Mercury Center

Notable digital news packages from Mercury Center:

- “Dark Alliance”—produced in 1996, became one of the first “viral” DNPs, and the first to publish an extensive library of sources
- “United States of America vs Microsoft, Virtual Courtroom,” 1999—early immersive experience

Most online news access between 1992 and 1994 was not in a Web browser but rather took place on Internet portals such as CompuServe, America Online, and Prodigy. Using a portal, you didn’t launch a browser and type in a Web address like Online, and Prodigy. Using a portal, you didn’t launch a browser and type in a Web address like www.MercuryNews.com; instead you would log on to the Internet via software stored on a compact disc provided by a company such as America Online (AOL) in order to access the *Mercury News* online edition. It wasn’t until the mass adoption of Netscape Navigator after its launch in 1994 that news companies left portals behind and ventured onto the Web. The first among them was the Mercury Center of Knight Ridder’s *San Jose Mercury News*, commonly referred to as Merc Center.

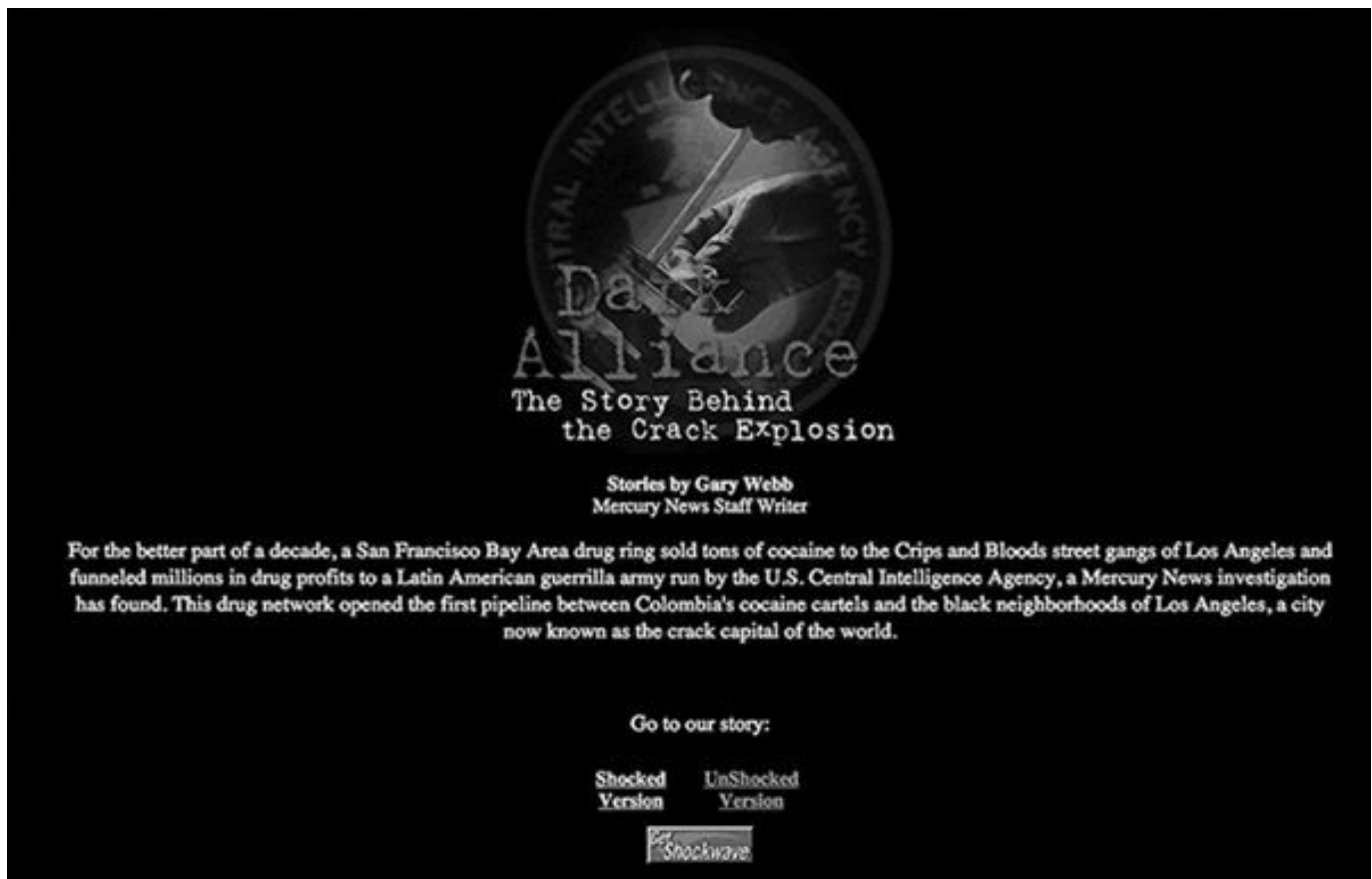


Figure 2.7 “Dark Alliance,” *San Jose Mercury News*, 1996



Figure 2.8 “United States of America vs Microsoft,” *San Jose Mercury News*, 1999

The Merc Center was named by its founder, editor Bob Ingle, who described his thought process behind the name “Center” in a company memo: “It’s not perfect, but it does convey nicely the concept: that the newspaper is at the center of information and communication in the community.”³⁷ With the *Mercury News* no longer bound to its portal service, AOL, Mercury Center continued its legacy of “firsts” and was among the first recorded news sites to break news on the Web, the first to offer its entire digital archive on the Web, and the first to unwittingly create the Internet’s first “viral” news story, with a controversial digital news package called “Dark Alliance.”

Geri Migielicz, the director of photography at the time, recalled some of the barriers facing the early days of Web publication:

The best thing about the Mercury News was that it was a place that wanted to break new ground—a mantra was to not be satisfied with doing what everybody else was doing. How could we make a story unique to our readership? In Valley-speak, how do we innovate and iterate? The Web offered the possibilities of sequencing images without the space constraints of print. Telling a story in pictures was a dance with the difficult geometry of newsprint. Photographs are mostly horizontal and the page is vertical, and there were a finite number of ways of displaying a photo story on a news page.... With Merc Center, we latched on to the idea that we could offer experiential content on the web and take risks we couldn't do with print. We knew we wanted to run with ideas, but Merc Center proceeded with a toddling walk when it came to photojournalism.³⁸

Almost immediately, the staff of Mercury Center gained a newsroom reputation as insular and even secretive, often discouraging the main newsroom from engaging and contributing to the site. Migielicz took the first opportunity to seed Mercury Center with someone from the newsroom. Migielicz tapped one of the newsroom's most talented photo editors, Scott DeMuesy. "DeMuesy loved technology, second only to photojournalism," said Migielicz. "I thought it would be great for photography if we made a commitment to the digital platform [Merc Center] and in doing so had the bonus of getting our very own mole inserted into the heart of the operation."

DeMuesy initiated some of the first online multimedia efforts for Merc Center and the industry at large. "Things for me really started to get exciting when I received beta copy of Adobe PageMill...being a visual person I wanted a WYSIWYG (what you see is what you get) program that would help me design pages. I really thought this would become the 'QuarkXpress' of the web and everyone would eventually use it. Well, I was wrong. Turns out PageMill just put too much extraneous code into the documents. I spent most of my time cleaning up the HTML PageMill created."³⁹ DeMuesy would immediately experience more frustrations of being "first."

As DeMuesy's creativity was ready to run wild with multimedia presentation ideas, the Web itself seemed to be holding him back. Noting the snail's pace of Internet load times, he recalls having to warn viewers that a gallery of photographs might be too large for the Internet speeds at the time (30–40 kilobytes per photo, which by today's standards would be the file size

of a site's logo). "The biggest problem with the gallery was that it could not be easily updated. So, there were long periods the same photos stayed on the page, and we actually had to warn people how many images were on the page," stated DeMeusy in an e-mail interview.

Another early disappointment seemed to be lack of audience, as he realized one evening when the site went down and no one complained during the newspaper's annual Thanksgiving day special section.

This was a project that included a lot of [Web] pages and photos. I spent hours and hours after work trying to get it just right. It was to debut Thanksgiving day 1995 and the link to the online version was published on the front page of the newspaper. The first thing I did Thanksgiving morning was fire up my modem, type in the URL and nothing appeared! So I hauled ass to the Merc and had a security guard let me in to Merc Center so I could post the site. It was at that moment I realized that Merc Center wasn't a high priority to the newspaper: I thought we would get some complaints that the site wasn't up, we didn't.^{[40](#)}

As the photo editors would realize, being at the cutting edge included plenty of frustration and setbacks. All early multimedia content suffered the same fate at the whim of slow modem connection speeds. The computers the audience had, though revolutionary at the time, were limiting and lacking capabilities of software. While the work of early online content producers was certainly slow to load by today's standards—and their designs, in hindsight, seemed simple and primitive—it was not for lack of expertise. All nascent environments are inherently limiting in nature, and the Web was no different. The infrastructure was still in a 1.0 version. An apt description of DNPs of the time could be characterized this way, "CLICK, WAIT... REVEAL."

"We couldn't guarantee quality—or actually guarantee anything at all," remarked Migielicz. "And there were few rewards for doing content for the Web. We still had to feed the beast [the newspaper] and make sure our best efforts worked in print, as well. With our early experiments, I knew the potential to break new ground in visual storytelling was perhaps limitless, but that the technology of the time was clearly a barrier. If we created it—could anyone load it and view it? It was one hurdle that we were about a decade ahead of as far as Merc Center and Knight Ridder was concerned."^{[41](#)}

Despite some growing pains and technological impediments, the answer to the question, “Was anybody out there?” was answered with a resounding “yes” two years later. Although it made its way onto the Web without the strong visual presence desired by the photo staff, Merc Center’s reputation was growing—so much so that in 1996 *Editor & Publisher*, the trade magazine of the newspaper industry, named the site the nation’s best newspaper on the Web.⁴²

Before the word “viral” was used to describe the rapid and wide spread of a story, Merc Center, for better or worse, became an overnight sensation with the publication of an online news package called “Dark Alliance.” The series, written by the *Merc*’s investigative reporter, Gary Webb, charged that the US-backed Nicaraguan contras were funded with profits from an inner-city crack trade. The package was printed in typical newspaper fashion, over a series of days with a large amount of the newshole devoted to the story, photos, and maps. These “special” reports have long since been a staple of the print product, but the publication of the “Dark Alliance” series on the *Merc*’s fledgling website was new territory. The Web permitted Merc Center to experiment with seemingly unlimited space and dabble with other technologies unfamiliar to a newsroom at the time, like audio and graphic animation.

In a 2011 article written for the *Columbia Journalism Review*, “The Newspaper That Almost Seized the Future,” writer Michael Shapiro described the initial reaction to the series: “The response was electric; the story became the subject of talk radio, and of every conspiracy theorist who believed that the government was secretly behind the crack trade. ‘You don’t have to be the *New York Times* or the *Washington Post* to bust a national story anymore,’ Webb said. Traffic boomed.”⁴³

Although the reporting for the series was wrought with controversy, mainly accusations that Webb and the *Merc* had overreached in their reporting of the story, there remains a significant contribution by the online series to the evolution of the digital news package. It’s certainly true that the aforementioned viral nature of the story—how quickly and widely it spread—is worth mention; so too was the way the online news package was presented. There’s no doubt that the story spread because of its publication on the Internet. But the nature of how it was published can serve as an

example of how news organizations were structuring and presenting multimedia content during the Web 1.0 era.

The “Dark Alliance” website launched with a clean, minimal, text-driven presentation. Beyond the obvious blue-colored hyperlinks was a sidebar positioned on the left of the page that contained what the *Merc* would call a library. Included in the library were more than 30 documents: court transcripts, agency memos, letters by public officials, audio recordings from wiretaps and hearings, an animated map of the cocaine pipeline through Central America to Los Angeles, bios of the central figures in the story, links to outside resources, and even a discussion board where readers could give their opinions. The stories themselves were separated into three parts: day one, day two, and day three. Once a user clicked inside a story, additional information would appear as links to photos, maps, and audio positioned next to the text on the right-hand side of the page. The entire package was presented in a continuous vertical layout. “Dark Alliance” was the first recorded digital news package to deliver such a rich collection of primary sources to the public. Many newsrooms around the country took note of the series for more than its controversial reporting and recognized a new era in online storytelling.

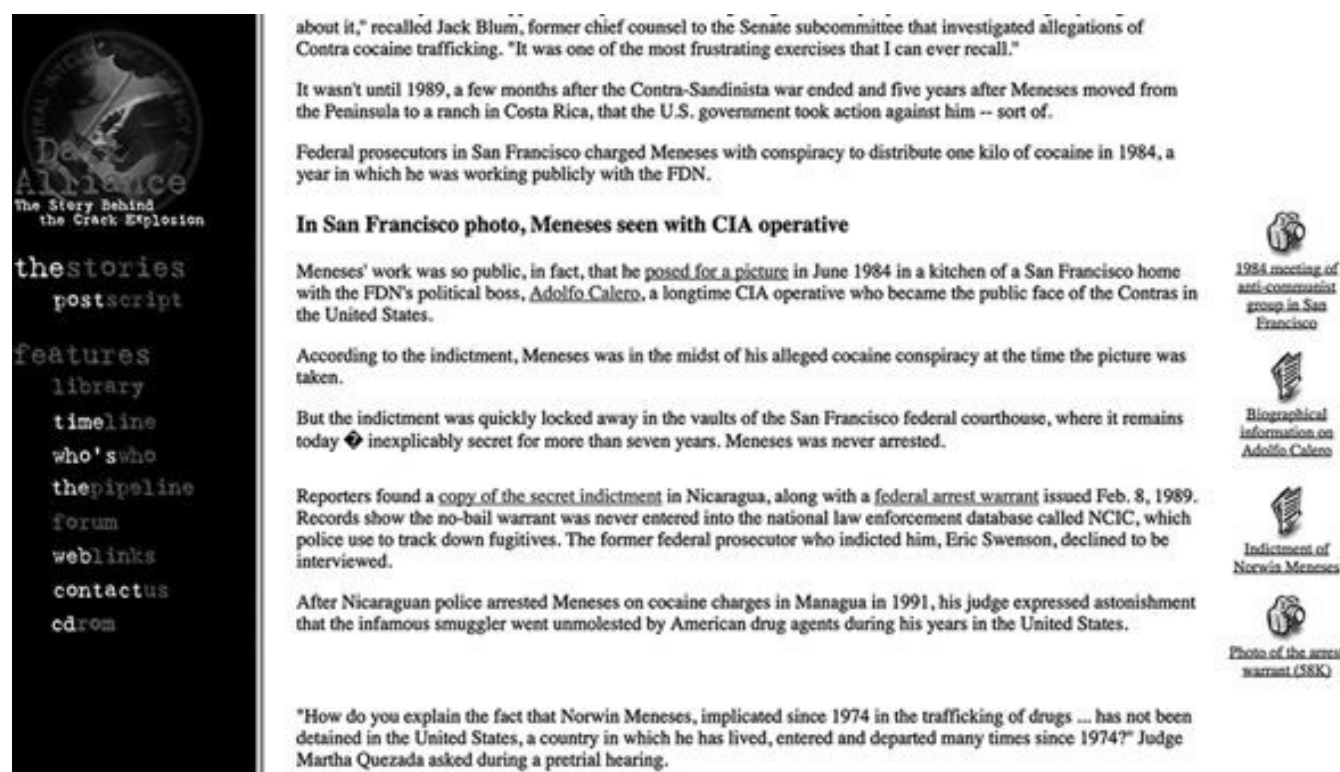


Figure 2.9 “Dark Alliance,” *San Jose Mercury News*, 1996

The Internet had arrived.

Chicago Tribune Online

Notable digital news packages from *Chicago Tribune* included these early nonlinear packages:

- “Code Blue: Survival in the Sky,” 1996
- “The Babies Grow Up,” 1996
- “Chicago: The Convention Capitol Tour Guide,” 1996
- “Jordan’s Journey,” 1999

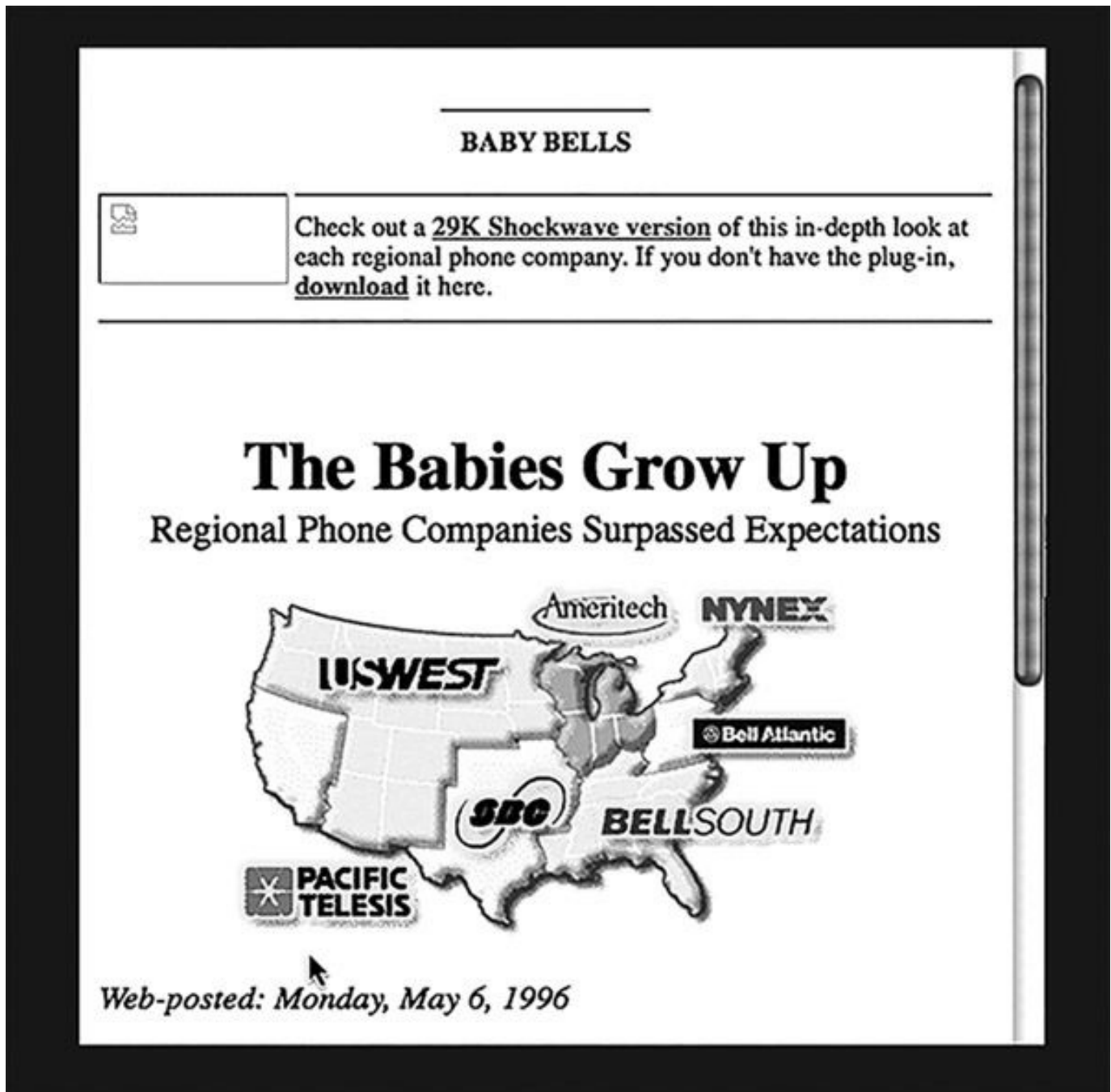


Figure 2.10 “The Babies Grow Up,” *Chicago Tribune Online*, 1996

While the DNP was still in its infancy and experiencing growing pains, the *Chicago Tribune* was charging forward into the future, creating a new breed of journalist. Leah Gentry, a former editor at the *Orange County Register*, launched the online version of the *Tribune* in March 1996. She became industry famous for a set of guidelines that she called *Leah's Rules*:

1. All the regular rules of journalism apply. Reporting and editing must be solid. Facts must be checked and rechecked.

2. If you're going to use the week's gizmo it has to help advance the telling of the story in a meaningful way.
3. No instant publishing. Everybody has his or her finger on the press, but nobody is allowed to post a page that hasn't gone through the editing process.
4. Reporters need to think of the medium while reporting. In addition to story information, they must gather or assign information for animated or still graphics, video, and audio.
 - **The main rule:** What we're doing is journalism, not stupid technology tricks.⁴⁴

The *Tribune's* online efforts were unique from the outset in that its reporters were dedicated exclusively to the online version. Most other newspapers at the time had their staff doing double-duty working for both the print and online editions.

Initially relegated to a small hallway-like room on the fifth floor of the *Tribune* building, Andrew DeVigal, then a 27-year-old graphic designer and online producer, recalled, "People called it the dorm room because all of a sudden a bunch of young kids were gathered in a very small space."⁴⁵ With almost two dozen staffers assigned to the operation and clear "rules" from Gentry, they would set the standard for early nonlinear DNPs.

During an interview with the authors, DeVigal, now the Chair of Journalism Innovation and Civic Engagement at the University of Oregon's School of Journalism and Communication, recalled some of the early thinking that took place in the dorm room: "We were asking ourselves, how do we pause a piece of media and allow people to engage with it, to be more thoughtful and have control of their own pacing through the story? To a lot of storytellers that idea was sacrilegious. They say, 'I don't want anybody to stop my experience,—grumble grumble—I put together this experience and this is the way it's meant to be.' And while that might be true from a storyteller's perspective, maybe not so for the user." The team at the *Tribune* was on the hunt for authentic interaction. "We were looking beyond press, play or the next and previous buttons of an audio slideshow. To me it becomes interactive when you are purposefully inquiring about a piece of information or a piece of data with the ability to control that experience. Perhaps another way to look at this is that it was an early way to personalize

the user's experience through that data. So that's where I think interactive graphics plays an interesting role."⁴⁶ One of the earliest examples comes from DeVigal himself. Posted in May 1996, "The Babies Grow Up" interactive feature was produced in Macromedia Director and published using a pre-Flash plug-in called Shockwave. The project mapped the regional phone company's coverage and charted their revenue over ten years. In an online post DeVigal recounted that "in those days, all of these early web pages were hand-built without a content-management system."⁴⁷ Instruction on the site advised viewers to drag their mouse "pointer" over regions of the map to identify the telecommunications company's coverage. When clicking on a desired region on the map, the user would be presented with more information on the firm.

"Most graphic journalists have the ability to see things in a very interactive way, a nonlinear approach."⁴⁸ The secret to DeVigal's statement and the area in which the *Tribune* would excel lies in the word *nonlinear*. The dedicated staff of the *Tribune* went on to set the early standard for nonlinear story packages. Instead of a single narrative, stories were broken up into component parts, which included a main narrative and then links to the other sections of a story. Gentry described their nonlinear process as deconstructing and reconstructing a story in a 1999 study for the Poynter Institute by Carole Rich titled "Newsriting for the Web." This process included specific steps:

- **Deconstruct**—Divide your story into its component pieces. Look for similarities and relationships between the pieces, and group together segments that are similar.
- **Reconstruct**—Use a storyboard to create a diagram that lays out the relationships between the groupings and how the nonlinear story can be organized.
- **Micro-element**—Determine the main linear story line—what happened and must be told.
- **Macro elements**—Define other more contextual elements of the story that readers can choose to read or not. If there is a cast of characters in a story, these elements could be the different viewpoints of each character.⁴⁹

The online packages that the *Tribune* produced showed a clear distinction

between the print edition and online. In Christopher Harper's book *And That's the Way It Will Be: News and Information in a Digital World*, DeVigal named the main differences in platforms: "immediacy, interaction and multimedia."⁵⁰

While many of the nonlinear projects they pioneered are lost to link rot, a few descriptions still remain. A 1996 package, "Chicago: The Convention Capitol Tour Guide," explored in tremendous detail the history of political conventions in Chicago and was part of the *Tribune's* coverage of the 1996 Democratic convention. The online edition capitalized on the *immediacy* factor mentioned by DeVigal by updating stories throughout the day. *Interactivity* was implemented via an online poll, and *multimedia* features allowed users to listen to speeches, watch videos of delegates, and view the entire convention floor in a 360-degree panorama. There was more: In the spirit of nonlinear presentation, there was a historical tour of some of the previous political conventions in Chicago, starting with the one that nominated Abraham Lincoln in 1860. "The idea was to take people on a tour that was a virtual museum," said Darnell Little, the reporter who conceived the project.⁵¹ In a further breakdown of the project, used by Paul Grabowicz, senior lecturer and Bloomberg Chair in Journalism at the University of California at Berkeley, during his new media courses, Grabowicz detailed the stages of the project. The story had three parallel streams:

- a tour through six conventions;
- a behind-the-scenes look at what was happening in Chicago at the time;
- story archives and political cartoons from the time.

The reporter storyboarded each story in a process called "layering" the story:

- an opening page that was based on an anecdote, which had a headline, a digital photograph, and text of usually less than 500 words;
- a second page that was the nut graph, explaining the main points of the story;
- finally, links to additional pages that guided the reader through the various aspects of the story.⁵²

Most importantly, a reader could chart their own course through the stories, moving between the different streams or narratives. For example, the user

could be reading about the 1860 convention and want to know what was happening in Chicago at that time. So they could click on the link to the “behind the scenes” section. From there they could click on the story archives to get more background information. Then they could go on to the next convention or instead skip ahead to some other convention.

These early *Tribune* efforts were a clear example that new methods of telling stories and presenting information were being firmly welded together on the Web. Most notably, the *Tribune*, MSNBC.com, and Merc Center proved that creating multimedia content presented fewer boundaries than legacy platforms.

While some organizations were licking their wounds from early failures, others were careening forward. The National Newspaper Association (NNA) reported that 175 newspapers had made their way online by April 1996.⁵³ It was a time of frenzied activity for multimedia experimentation. Online content producers were presented with multiple avenues as they made their way to the Web. Some early practitioners went beyond a shovelware approach (simply duplicating print content online) to enhance their coverage with additional information, as was done in “Dark Alliance,” or to create entirely new content using interactive tools, as the *Chicago Tribune Online* did in “The Babies Grow Up.”

Other Notable Digital News Packages

Greatest Hits

- “Virtual Voyager,” 1995–1998—HoustonChronicle.com
- “North Carolina Discoveries,” 1996—Nando.net
- “Black Hawk Down,” 1997—Philly Online

The *Houston Chronicle*

The still primitive digital culture was shaping up to be the electronic equivalent of the Wild West. One of the most interesting enterprises was conducted at the *Houston Chronicle*. Taking a page from the *Chicago Tribune*, the *Chronicle* began to send its reporters into the field with digital cameras and high-quality audio recorders to provide multimedia content for the site.

What resulted was one of the paper's most popular and most innovative multimedia features, according to a 1997 *Los Angeles Times* article, "Newspapers Take Different Paths to Online Publishing."⁵⁴ Dubbed Virtual Voyager, the online-only project's aim was to take advantage of the Web's ability to create an immersive experience with users. The scope and ingenuity of Voyager's presentations marked it as one of the most innovative DNP efforts of the time.

Stories ranged from Australia to China and even points along the famed Route 66—sometimes with a camera mounted in the backseat of a car—and the Voyager team took readers as close to these locations as it could without them actually being there. From the Grand Canyon, they provided 360-degree photos, logs, maps, diaries, and audio and video segments. A detailed examination of Voyager's explorations are presented in Pablo J. Boczkowski's 2004 book, *Digitizing the News*, where he writes that the project accounted for approximately one-fourth of the site's traffic in 1996. That year, it was named Best Interactive Feature by the Newspaper Association of America in their first ever digital media awards competition.

Providing a rare and privileged glimpse into the complex authoring practices of Voyager, Boczkowski reflects on the editorial distinctions between working online and working in print by observing an unmistakable change in the workflow of early online storytellers. Boczkowski wrote that content creators now had the burden of deciding "to choose whether to use text, still images, video, audio, computer animation, and 360-degree photographs to tell either the whole story or parts of it, instead of having those choices constrained by the delivery vehicle."⁵⁵ Furthermore citing a noticeable mixing of print workflows with that of broadcast, radio, and information systems work, Boczkowski recognized a major shift that would take hold in the thought process of digital storytellers. The presentation of the DNP was altering and so was the mindset of the creator.

The Raleigh News & Observer (nando.net)

It was becoming blindingly clear that the production of multimedia packages required new skills and more hands-on time to produce than the traditional print edition. This was especially apparent at the *Raleigh News & Observer*, commonly nicknamed the "N&O." They were among those giving

the Internet a fresh voice with the site Nando.net (“N and O”). In a 1995 *American Journalism Review* (AJR) article titled “The Digitized Newsroom,” writer Philip Moeller detailed the N&O’s approach to reshaping journalism, depicting a published digital news package, “North Carolina Discoveries,” as a massive team effort. The special report, focused on state topics, utilized all available media platforms for publication—an unprecedented move. While N&O staffers gathered multiple media in the form of pictures and audio, local TV stations in partnership with the N&O gathered video. The final product, a 16-week series, was published to Nando.net, the newspaper, and radio and television stations. The N&O was breaking an early stereotype of a multimedia reporter as a one-man band, exemplifying how multimedia was a team sport. In the AJR article, N&O reporter Julie Ann Powers points out that their project required broadcast skills that were unfamiliar to traditional print reporters. “From the very beginning of the process [the reporting] is different,” she said. “I had to think in terms of sound and motion as well as whether it would support a full length story in the paper.” Sound, which is not a factor for print stories, proved a major new concern, she says, as did the need to compensate for the lack of visual elements in radio stories and, to some extent, print stories. She needed to pose questions that would elicit answers in a form suitable for recording, she explains, whereas her traditional interview style was much more conversational.⁵⁶ Suddenly newspapers were doing the kinds of things for which they had no template. As the reinvention of traditional news forms and workflows were being reinvented for the online world, the packages themselves began to slowly mature.

The Philadelphia Inquirer

On November 17, 1997, four years after two US Black Hawk helicopters were shot down by RPGs in Mogadishu, Somalia, the *Philadelphia Inquirer* began a 29-part print serialization of the events titled “Black Hawk Down.” During the fateful operation, some of the wounded survivors were able to evacuate, but others remained near the crash sites and were isolated. An urban battle ensued throughout the night. The saga was reported by the *Philadelphia Inquirer*’s Mark Bowden based on interviews with the men who fought in Mogadishu.

In a 2000 Nieman Foundation Report, titled “Narrative Journalism Goes

Multimedia,” Bowden would recall the process of creating the online version:

At the time, it seemed like a fairly simple task. In those early meetings I remember seeing Philly Online’s editor, Jennifer Musser, at the table quietly taking notes, and assumed she had a simple job—mounting the text of the series on the *Inquirer’s* Web site. To the extent I thought about it at all, I thought the Web site would give readers who picked up the series in midstream an opportunity to go back and catch up on the earlier installments, which would be particularly beneficial because the story was such a long, dramatic narrative. I figured it meant we would just display the text of the story each day online, along with the rest of the paper’s offerings. That was when Jennifer stopped by my desk to ask me what sort of research material and documentation I had for the project. I had been working on it for years at that point, and had piles of audiotapes, notes, documents, radio transcripts, photos, etc.⁵⁷

Musser’s next question would become the first step toward creating a landmark DNP, whose approach and presentation methods would be replicated for years to come. “Could you bring them in?” she asked. Bowden did and Jennifer, along with the online team—designer Ches Wajda, photo editor John Williams, and programmer Ranjit Bhatnagar of Philly Online, the *Inquirer’s* official website—packaged the contents into a vanguard of online story presentation. The package featured the full text of the series along with photographs, video and audiotape snippets of the battle, interviews with key participants, maps, graphics, and documents. As you scroll down the page of each chapter, related multimedia content is integrated within the context of the story; readers can click on a variety of links to view maps, audio interviews, or Pentagon video of the raid. By today’s presentation standards, the website might seem primitive: a single HTML page, devoid of any photos or video elements, serves as a landing page or an aptly titled “Table of Contents.” The text stories are in a column on the right, each linking to the 29 separate chapters, while the multimedia elements—video, audio, maps, and graphics—are hung on the left and at the bottom of the page. Once clicked, each chapter is anchored by the text with occasional thumbnail-sized images, maps, and video and audio clips embedded in the text. What made the presentation different was that, for the first time, related multimedia content was not presented in a separate

location or disconnected from the narrative text. But more importantly, embedded within the narrative of the text were links to the relevant multimedia material. For instance, if a reader wondered what was in Staff Sergeant Matt Eversmann's head as he slid down the rope into battle, all they had to do was click on the hyperlink embedded next to Bowden's text description and listen to an audio clip of Eversmann explaining the situation. Bowden summed up the early excitement of the "Black Hawk Down" package and the Web's storytelling potential: "On the Web site, the story became part illustrated book, part documentary film, part radio program. It was all these things and more, because it allowed readers (who at times became viewers) to explore the story and its source material in any way they chose."



The Inquirer

BLACKHAWK DOWN

philly.com

ORDER THE
COLLECTOR'S
EDITION

Basics:

Analysis: How a relief mission ended in a firefight

Background: A defining battle leaves lasting scars

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Figure 2.11 “Black Hawk Down,” *Philadelphia Inquirer*, 1997

Ten years after the package was published, it was turned into a novel and later adapted into an Academy Award–winning film. Bowden recalled his initial reactions to the online package:

It blew me away. When I started in the newspaper business, I learned to work on a typewriter with carbon paper, paste pot and scissors. Jennifer’s creation combined text, video, audio, documents, maps, illustrations, and a sprawling Q&A feature into something that was more than an amazing presentation—it was a glimpse of journalism’s future. It demonstrated the clear superiority of the Internet over the printing press. In the case of *Black Hawk Down*, apart from all the multimedia razzle-dazzle, it opened up a global dialogue with readers, including men who had fought in the battle. They corrected my mistakes, pointed me to better information, and offered to be interviewed, allowing me to improve greatly on the story before it was published as a book in 1999. Mine may have been, thanks to Jennifer, the first book that ever benefited from this new journalistic tool. In a sense, the story was edited by the entire world.⁵⁸

While the *Inquirer*’s “Black Hawk Down” project was produced during the Web 1.0 design period—with less attention paid to traditional layout methods, owing more to the limitations of the Web and less to the creative intentions of the designer—it is, however, the earliest example of some of the most extensive and significant uses of the features of hyperlinking, interactivity, and multimedia.

In 1997, presentation forms were in various stages of experimentation, but innovative and creative structures were being set into motion by these early multimedia producers.

Flash Forward

The year 1997 was a big year for the digital news package: not only was there a notable maturing of the form, but a tsunami of animation and interactive possibilities made their way into the hands of multimedia producers with the release of a software program called FutureSplash Animator. Initially used by MSN and Disney to bring more animated content

to their websites, it was acquired by Macromedia and transformed into a popular multimedia tool named Flash.

It would take several more years before a wide adoption of Flash-based websites made their way to the Internet, but the seed was planted. Though there were early adopters of Flash in the news industry for sure, a true era of “Flash Journalism” wouldn’t come until 2005 with the release of a “ridiculously simple storytelling” software tool known as Soundslides.

What made the various versions of Flash distinct were their ability to truly package multimedia elements into a single “container” in the form of an SWF file format. It’s evident that online producers were already creating provocative news packages on the Web without the need for Flash by linking separate web pages together, like “Dark Alliance.” Without the use of Flash, packages consisted of a single web page that served as an entry point to the narrative and then merely hyperlinked to additional pages with related media. In some cases pop-up windows were utilized. As the industry realized the infinite amount of online space, some of these special packages became bloated with multimedia content, such as the 29-part “Black Hawk Down” series. With most users still limited to slow connection speeds, file size of images and videos became an issue. Flash promised larger images, complex animations, sound, and video at a fraction of the size, significantly shortening download wait times. Furthermore, graphic designers who were desperate to bring their design expertise to the Web recognized Flash as a powerful tool to unleash their creativity. Thanks to the Flash interface, designers had precise control of the position of all media elements within the Flash Integrated Development Environment (IDE). Flash offered a harmonious and singular interactive experience on the Web not seen since the CD-ROM.

Flash forward to 2005. A stark reality faced the newspaper industry. As the print product fell on hard economic times, newspapers retrenched, reducing newsrooms with severe cuts and layoffs. It was a tumultuous time for newsrooms across the country. Despite the economic climate, presses kept running and online producers kept posting. This time marked a significant transitional period as the new medium—still young and unprofitable—was shifting, in most cases from an experimental skunk works to a more elaborate operation. This period, marred by an economic downturn, also saw Flash mature, bringing with it more feature-rich tools like streaming

audio and video. Users no longer had to wait for an entire video file to download before watching. With streaming, once the file downloaded enough data (known as buffering), you could hit the play button and start watching immediately.

The arch of DNP innovation shifted further when multimedia content went from being used as an afterthought to text to being used as an independent, stand-alone experience. This observation was echoed by Don Wittekind, graphics director of the *South Florida Sun Sentinel*, in the book *A Practical Guide to Graphics Reporting*: “Thanks to advances in software (Macromedia Flash) and increased bandwidth, we now incorporate every form of media into our project. This has allowed the multimedia component, which was once an accessory, to become an entire project.”⁵⁹ Flash allowed all media elements to be combined into a single frame without the need for separate windows and often without the need to scroll. DNPs created at this time were finally beginning to utilize some of the unique characteristics of the new digital frontier.

Nora Paul, the inaugural director of the Institute for New Media Studies at the University of Minnesota, outlined specific ways in which DNPs were transforming modes of presentation during a 2005 keynote speech to the Korean news industry in Seoul. Paul’s keynote, titled, “The Future of Storytelling in the Digital Age: Strategic Thinking for Online Journalism,” encapsulated the developments in digital storytelling during this period by showing specific signs it was transforming:

- from explaining to experiencing;
- from informing to inviting opinions;
- from episodic to encyclopedic;
- from “read their stories” to “hear their stories”;
- from newsprint layout to creative navigation.⁶⁰

During an interview in 2014, Paul set up the experiential nature of DNPs emerging at this time because of Flash: “With newsprint you use text to explain to people what has happened. On TV you can show them a video. But online you can let them experience it for themselves. It’s a powerful way to let people interact with a news story in a way simply not possible with other media.”⁶¹ She recalled a DNP that exemplified the shift from explanatory to

experiential multimedia experiences. Paul referenced a Flash-produced DNP from MSNBC titled “Can You Spot the Threats? Try Your Hand at Detecting Threatening Objects,” which was a baggage-screening game to illustrate the difficulties of spotting dangerous substances in luggage. After the September 11 attacks, the crackdown on airport security resulted in longer waits and baggage screening became a major part of every air traveler’s experience. MSNBC helped travelers to trade places with security screeners and experience what it was like to become responsible for detecting threats.



Figure 2.12 “Can You Spot the Threats? Try Your Hand at Detecting Threatening Objects,” “MSNBC.com”

The baggage-screening interactive is a game-like experience where the user is given two minutes to look at luggage X-ray images as they move past the screen. The player has to spot possible threats and stop the flow of bags, but if they take too long frustrated travelers would make snippy audio

comments about their slow performance. This experiential package gave visitors to the website a clearer sense of air screening issues and helped to build empathy with those performing a frustrating new part of travel.

► The Edge

As noted earlier in the chapter, not all multimedia journalists rode the early Flash wave, due in part to its steep learning curve. But those at the forefront of this movement at the outset were the online producers at the *South Florida Sun Sentinel*. Their extensive and impressive body of Flash-based DNPs were featured in a special section—now defunct—on the newspaper’s website called “The Edge.”

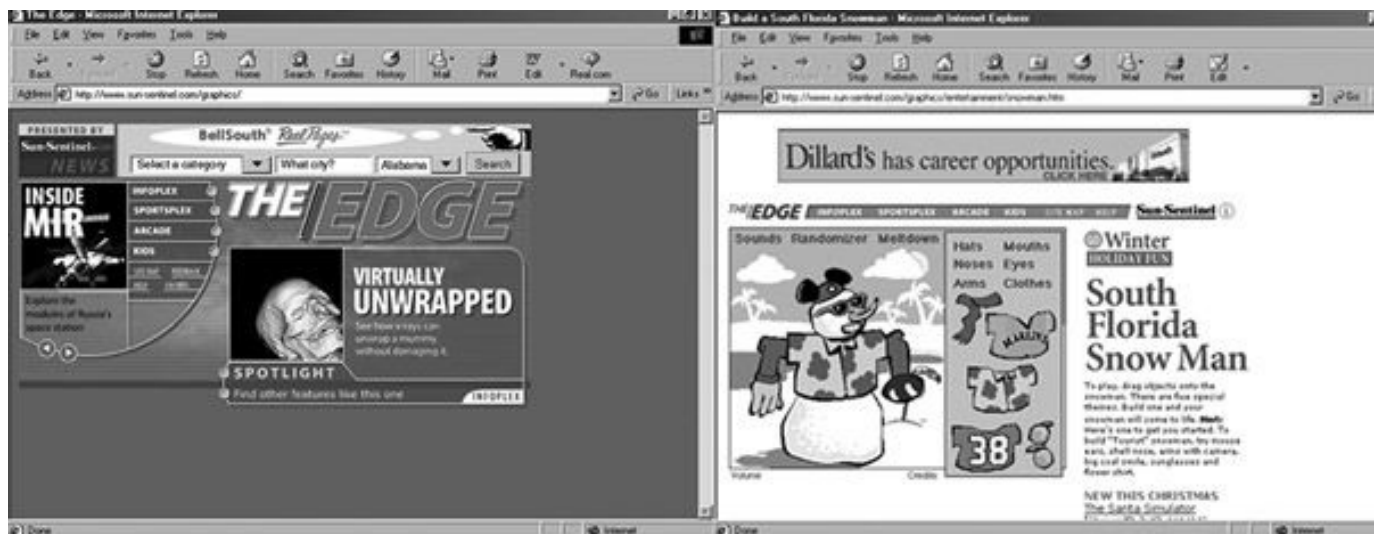


Figure 2.13 “The Edge,” *South Florida Sun Sentinel*, 1999

Over the years, Paul Grabowicz, senior lecturer of New Media at UC Berkeley, collected hundreds of interactive projects from “The Edge.” Many of them were designed as simple games that people could play to better understand news events; others were just for fun, like a “South Florida Snowman,” which allowed users to dress a snowman by clicking and dragging elements on the page.

In 1999, the *South Florida Sun Sentinel* described “The Edge” on their About page: “What is The Edge? The Edge is a haven for anyone who has the processing power to take advantage of Internet multimedia. Using Shockwave Director and Shockwave Flash, we bring you the news with the added benefits of sound, animation and interactivity. If you’re tired of static

text and images, come inside and see the site Macromedia described as having ‘fully emersive [*sic*] multimedia learning experiences.’”⁶²

► **Flash Journalism Comes of Age**

Until 2005, most of these DNPs were produced by large to medium-sized media operations. Limited staffing and the steep learning curve required to adopt new workflows in technologies like video, audio, and Flash left a large percentage of journalists on the sidelines, simply shoveling legacy media onto their websites. But new waves of journalists were about to flood newspaper websites across the country with audio-driven photo slideshows. They did it with the help of a software program built by photojournalist and coder Joe Weiss.

Reporter Pat Walters noted the sea change in a 2007 article for Poynter.org, saying, “Audio slideshows seem to be showing up on more and more news Web sites these days—and not just on sites produced by national news organizations. From what I can tell, much of the growth is being driven by smaller newsrooms, with many of the collections created by one program. Soundslides.”⁶³ If any single development in the evolution of the online package is responsible for this explosion of audio-driven photo narratives, it’s the creation of Soundslides, whose tagline still remains, “Ridiculously simple storytelling.”

Weiss recalled the early events and motivations leading up to the creation of the rapid slideshow production tool. In a 2014 interview with the authors Weiss recounted driving away from an assignment at an orphanage for the *Durham Herald-Sun* in 1999 and being struck by the stories he heard from the kids more so than the images he made of them—a powerful statement for a photojournalist to admit. Weiss decided right then and there to go back and record audio and put together a multimedia package. Weiss purchased an inexpensive microphone and a MiniDisc audio recorder at his local electronics shop and returned. He used Flash version 4 to create his first multimedia package. Most other audio-driven photo slideshow tools at the time were tedious or difficult to use. Weiss recognized another more troubling frustration: the “ridiculously, soul crushingly time-consuming” process of working in Flash. Weiss recalled 10-hour days to create a simple 20-image audio slideshow. “Everything needed to be done by hand, I had to

build all the transitions between the images, one-by-one using keyframes... it took a ridiculously crazy amount of time.”

Weiss would spend the next five years in fits and starts, trying to find a solution to the time issue by automating the workflow. Eventually in 2004 he pieced together all of his code snippets during a multimedia workshop where the participants were creating slideshows and put them into a user interface. “It was the first time they were put together in a standalone app that someone else other than me was able to use.” Weiss had an aha moment. He thought, “I’m making my life easier...why can’t this make everyone’s life better?” Weiss knew that the larger news operations could deal with the time and scale issue of producing these multimedia slideshows, but he wanted to reach the smallest of newspapers and even freelancers who were strapped for time and resources. Weiss would launch Soundslides in August 2005 for \$39.95. “I did my best to pick a price that everybody could afford. It didn’t take off like a rocket, but it took off pretty quickly.... Then in late 2006 and 2007 it was like a rocket. Everywhere I turned it was there. I used to put a pin on a map every time a copy sold and then I couldn’t even keep up with the demand. Ultimately, I didn’t want to see my peers sitting in front of a computer for hours on end doing horribly redundant work[;] they should be out on the street telling stories.” The small piece of inexpensive software offered a bit of promise during a time when many staffers were wondering what was going to happen to their jobs because of the economic belt tightening in the newspaper industry. Times were tough, layoffs were always on the horizon, and securing a position as a valuable contributor to the online product—while still not significantly profitable—was a safe move for job security.

“I don’t know what multimedia would look like now without Soundslides. I don’t know what would’ve happened to the profession if journalists hadn’t gained some web skills via the use of Soundslides.” said Weiss. Weiss’s audio slideshow production program—initially dubbed “Joe’s Tool” by the first workshop participants to use it—lived up to its tagline and helped a “ridiculous” number of journalists transition into multimedia.

Brian Storm, who hired Weiss at MSNBC, said, “I’m happy he did it because it made the whole industry move. That was just the tools becoming easier, but the introduction of Soundslides is just a key, key moment in the evolution of

our business.”⁶⁴

Video Video Video

Almost as quick as the audio slideshow revolution began, it was overshadowed by the demand for video on the Web. Just as the industry was learning Flash and flooding the Web with audio-driven slideshows, a sudden precipitous fall-off would occur.

On February 14, 2005, three former PayPal employees, situated in an office above a Silicon Valley pizzeria, launched the domain YouTube.com. The video-sharing site quickly became one of the fastest growing services on the Web.⁶⁵ Users began uploading an astonishing amount of video content. According to a *USA Today* article at the time, users were uploading more than 65,000 new videos and delivering 100 million video views per day in July 2006.⁶⁶ For the news industry, the growth of YouTube represented a significant opportunity and challenge. Expanded bandwidth and new streaming technologies allowed video to be delivered in a smooth and seamless experience. With a sense of not wanting to miss out on the next new wave, a breed of pioneering photographer broke out of still photography into video. Accompanied by smaller, less expensive digital video cameras with high-definition quality, Pulitzer Prize-winning photojournalist David Leeson, from the *Dallas Morning News*, led the charge for video in the newsrooms.

Leeson recalled the pivotal meeting with his then director of photography, John Davidson, that would launch his video career: “As I sat down in his office, he told me that he saw someone from the web staff shooting a video in the photo studio for use on DallasNews.com. His concern was that video, a visual medium, created by someone with no background in photojournalism, could lead to an erosion of photojournalism standards on the web. So he asked me to take a closer look at video from the viewpoint of a photojournalist. The meeting ended with a succinct order I will never forget: ‘Just go DO something.’”⁶⁷

After months of producing video, Leeson discovered “a new and powerful way to tell stories. Furthermore, I saw the writing on the wall and knew that web video for news media would soon explode, and I wanted to be on the

cutting edge of that innovation.” As the only still photojournalist in the country shooting exclusively with a video camera, Leeson had concluded that still photojournalists transitioning to video should and could hold fast to their skills as still shooters. Video, he insisted, “is a change of cameras and little else.” Leeson would spread his message and workflow to the rest of the newspaper industry—hungry for information on how to transition from still to video—at conferences and workshops across the country.

In 2005, when Leeson enthusiastically took to the podium to make his case for a wider adoption of video in newsrooms, he would explain his logic for switching from stills to video this way: “Video coverage could provide 1) still images for both the print and web editions 2) audio could be extracted from video for radio or web use 3) stills and audio could be combined to create a multimedia slide show 4) it could be used as a video or 5) all of the above.”⁶⁸

It took several years before his message was fully received. In a 2008 *American Journalism Review* article, “The Video Explosion,” it was clear that the use of video as a crucial component to DNPs had grown from “a significant trend into a near stampede.”⁶⁹ While commenting on a video posted to the *Washington Post* website, the article’s author, Charles Layton, a former editor and reporter at the *Philadelphia Inquirer*, said, “It was not a gimmick, not an add-on, not forced or contrived, but a fully integrated piece of interactive, multimedia journalism, as user-friendly as a spoon...it quickly became one of the most-viewed stories ever to appear on WashingtonPost.com.” The article went on to quote *Miami Herald* photographer-turned-videographer Chuck Fadely: “We have four people on the photo staff doing video full time, and we’re doing 15 to 18 [stand-alone] pieces a week.” The *Herald* was also training reporters in video. “The change in the industry right now is the most dramatic I’ve ever seen,” says Fadely. “Virtually every paper in the country is, if not diving head first, at least dipping their toes into video.” Around this time a common question around newspaper photo departments was, “Can we get a video of that?”

If we rewind to 2005, we’ll find that seated in the front row of Leeson’s impassioned plea for video was the director of photography of the *San Jose Mercury News*, Geri Migielicz, who took heed of Leeson’s message and immediately “schemed” her way into purchasing a high-definition video camera for her photography staff. After years of frustration with the lack of

attention to visual storytelling on the *Merc*'s website, Migielicz saw video as the perfect opportunity to push the medium forward. Migielicz assigned two of her photographers (one of which was an author of the book, Richard Koci Hernandez, the other photographer Dai Sugano) to work on producing a visual-driven website and incorporating a video workflow into the department.

After sleepless nights and plenty of energy drinks, Koci Hernandez and Sugano bootstrapped and launched MercuryNewsPhoto.com in late 2005. With the visually focused website launched, a reorganization meeting at the *Merc* threatened to create a new multimedia department, outside of the existing photo department. "I had to fight to keep what we were doing under photo supervision.... I made a strong case that at the heart and soul should be a photographer. It's not like they turned on the switch for the Internet and photographers were unprepared to tell stories on the Web using a computer; we had already been doing it. We were using Photoshop and had gone from film to digital, not to mention we recognized a series of images, sequentially as a slideshow from our Kodak projector days." Migielicz summed up the move to the Web this way: "it was more a seamless, less revolutionary moment."⁷⁰

Koci Hernandez spent more than nine months shooting exclusively with a video camera, providing content for the newspaper via a video-frame-grab process and posting short videos to the Web. With a video workflow in place at the *Merc* and more video cameras in the hands of staff photographers, Migielicz said, "We became truly, creatively free at last with the launch of the site. Suddenly restraint was a choice and going all out was possible.... It was freeing."⁷¹

Two years later, with MercuryNewsPhoto.com publishing Soundslides and Flash-based multimedia packages almost daily, they posted a break-through DNP.

The project was called "Uprooted." The ambitious project was presented as a six-part video series on the Web, with a multi-page spread published in the newspaper. The project, photographed by Sugano over a ten-month period, chronicled the displacement of a group of residents in a Sunnyvale, California, mobile home park. The Flash-based package, built by Koci Hernandez, used a traditional narrative structure for the package with a

beginning, middle, and end to display the longform narrative, but divided it into chronological “chapters” or “parts” to allow the viewer to view at their own pace.

In October 2008, the *Merc* would be honored with an award unfamiliar to the newspaper industry—the DNP won a national Emmy in a new category created by the Academy of Arts and Sciences to recognize the emergence of new forms of storytelling: New Approaches to News and Documentary Programming.

Migielicz, who oversaw the launch of the website and “Uprooted,” reflects, “We finally had a viable platform we could control. When I look at the projects we did with simple and often crude tools, I see the glimmering promise that is the hallmark of today’s best multimedia projects. We tried to take viewers places they couldn’t go and see things through the eyes and voices of the people who lived the stories we told. This powerful journalism experience has upended my career, for the better. The quality of storytelling always comes down to the quality of the idea, the story, the execution and understanding the audience. In the end, true multimedia authorship is losing yourself completely in the story, right alongside the audience.”⁷²

Propelled by the emergence of new tools like the hybrid DSLR (digital single-lens reflex), which are cameras able to shoot both high-definition video and stills as a single device, a solid emphasis on video-centric DNP production is still in place to this day.



“The Internet in Your Pocket”

With video and multimedia production firmly in place at newspaper organizations across the country, a new innovation in the summer of 2007 would upend digital news packages. No single event in the evolution of the DNP has been as disruptive to the form of online news packages as the introduction of the smartphone. On June 29, 2007, the launch of the first iPhone changed the mobile ecosystem dramatically, disrupting not only the mobile phone market itself but also the format of news people would consume on these devices. Although the impact was not readily apparent in the beginning, more than eight years later this industry is still adjusting to its reverberations.

It's important to remember that the first-generation iPhone launch wasn't about apps—in fact the App Store didn't exist then. It wouldn't open until more than a year later, when Apple truly changed the smartphone landscape. The device was squarely focused on browsing the Internet, as evident by Apple's ad campaign, "The Internet in Your Pocket." The iPhone was the first smartphone to offer a usable mobile browsing experience. Over the next few years PCs would become a decreasing share of Internet-connected devices as a result of the encroaching size of the smartphone market. This set the stage for a massively mobile connected browsing experience and a shift in content production specifically aimed at viewers whose appetite for consuming information on their mobile phones seemed insatiable. In fact, in 2014, Internet usage on mobile devices exceeded PC usage.⁷³ What did this shift in content consumption mean for online news producers, many of whom just became comfortable packaging content for desktop browsers? Also, there was the issue with Adobe Flash, which the iPhone didn't support. Flash had become the de facto tool for most multimedia creators. The popular industry platform Soundslides used to present slideshows on the Web used Flash as well. The mobile browsing experience would also have a considerable effect on the output of DNPs by news organizations in the years to follow.

"Thoughts on Flash"

In a controversial move by Apple, co-founder and former CEO Steve Jobs declared that Apple would not support Adobe Flash on its devices, including the newly introduced iPad. In a post by Jobs in April 2010, called "Thoughts on Flash," Jobs asserted that "Flash was designed for PCs using mice, not for touch screens using fingers. For example, many Flash websites rely on 'rollovers,' which pop up menus or other elements when the mouse arrow hovers over a specific spot.... Even if iPhones, iPods and iPads ran Flash, it would not solve the problem that most Flash websites need to be rewritten to support touch-based devices."⁷⁴ While the letter drew immediate criticism in 2010, some even accusing Jobs of being misleading about the prominence of video on the Web,⁷⁵ over the years the slow evaporation of Flash as a Web technology has played out in Apple's favor and has led to an almost Flash-less mobile Internet.⁷⁶

At the time, no one had more reason for concern than the creator of Soundslides, Joe Weiss. “If there was ever a point of crisis in my professional life as a journalist and with Soundslides, this was it. It seemed like people were told that their favorite tool didn’t matter anymore. I felt enormous pressure to not screw over all the journalists that I had enabled with Soundslides.”⁷⁷ Weiss spent the next six weeks re-coding Soundslides as an HTML5 technology, which meant that it would run completely in every browser, even mobile devices, and wouldn’t rely on third-party plug-ins like Flash any longer. “Those six weeks were awful. I literally had people writing me everyday saying, ‘I can’t contribute online anymore.’ No matter who you blame the fact that Flash wasn’t available in a mobile world, [it] meant it was no longer a legitimate choice for the multimedia journalist toolkit.”

During this period, there was a noticeable drop in the production of Flash-based interactive narratives, especially from smaller news organizations. In fact, even a cursory glance at the news industry’s largest database at the time, InteractiveNarratives.org, shows a slowing of Flash-based entries into its database. “I really think that the interactive journalism world lost three years in the production of projects, just snap your fingers, 2007, iPhone, Bam! Flash is dead. No more interactive journalism. In fact we may have lost more years than that because it took a while for people to say ‘we really need to stop using Flash.’ It was monumental,” said Weiss.⁷⁸

The issue became worse with smaller news organizations. Seth Gitner—assistant professor of newspaper and online journalism at Newhouse School at Syracuse University and author of *Multimedia Storytelling for Digital Communicators in a Multiplatform World*—said, “I just don’t see people producing interactive projects the way we were back in the early 2000s. Back then it was done on such a large scale. Everybody from large papers to small papers. Today you only see the large papers organizations producing large interactive projects. I think newspapers have stopped innovating. For them, innovation simply means a video, not interactive projects. For one, smaller papers with very little resources can more easily monetize video. Really rich multimedia storytelling is only being done by the large organizations.”⁷⁹

Because HTML5 is more code-intensive and requires a vast amount of technical knowledge, expert producers are likely to be found in large

national news organizations. Digital news packages produced in 2014 have become more sophisticated than their Flash predecessors, perhaps in part because they require so much more expertise by specialists who understand the relationships between HTML, JavaScript, CSS, and responsive design principles. While the following chapters in this book are filled with case studies of DNPs, a clear example of post-Flash innovation and a modern manifestation of our evolutionary past, the *Guardian*'s "NSA Files: Decoded: What the Revelations Mean for You" bears examination.

► **Decoding a Modern Digital News Package**

It seems fitting that the first contemporary DNP to be examined involves the work of Gabriel Dance. Dance is the managing editor for digital operations at the Marshall Project, a nonprofit, nonpartisan news organization covering the criminal justice system. Dance's background and experience have put him at the center of DNP innovation for almost a decade, starting at the *New York Times* as a multimedia producer in 2006. After the *Times*, Dance was the art director for news at the iPad-only newspaper the *Daily* and then served as the interactive editor for the *Guardian*. While at the *Guardian*, he was part of a group of journalists who won the 2014 Pulitzer Prize for Public Service for coverage of how the US government conducts surveillance. Dance and his colleagues had one of the biggest and most complex national news stories drop in their lap when Edward Snowden leaked documents to the *Guardian*, and they were given the herculean task of creating an online news package from the materials.

In an article on Knight-Mozilla's OpenNews Source publication, Dance wrote, "The goal of the NSA Decoded project was to create an interactive story that used all of the Internet's storytelling devices (video, interactives, maps, charts, text, and yes, GIFs!) to explain the story of the NSA files in an accessible and relatable way."⁸⁰ The mega-explanatory interactive, published on November 1, 2013, instantly generated a level of social media excitement not seen in online journalism since the *New York Times* published its "Snow Fall" project.

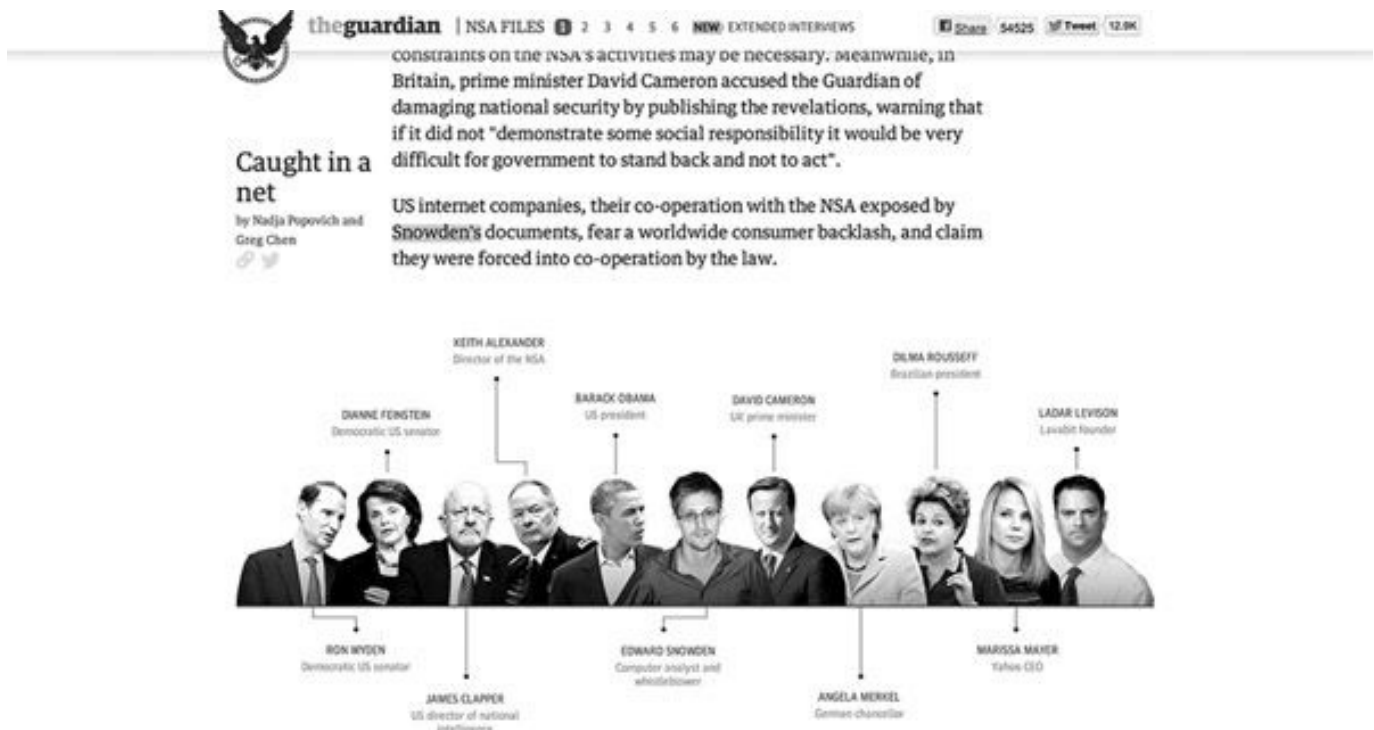


Figure 2.14 “NSA Files: Decoded,” *Guardian*, 2013

In trying to provide context for the story, the team at the *Guardian* managed to create a package with multimedia synergy that comes alive via video, graphic animation, and data visualizations, all triggered as you scroll down the page. During an interview with the authors, Dance explained, “I really, honestly believe that there is nothing else out there that looks anything like this [“NSA Decoded”]. Or that behaves anything like this project. And we didn’t build this from a model. This is something that I saw in my head. Certainly it is influenced by many things but not a copy of anything. The team’s goal was to take advantage of the tools that the web provides to help make the piece more engaging.”⁸¹

Among the challenges for the team who worked on the project for three months was the lack of visuals inherent to the story. “We didn’t have any lovely video or photos to run with it, so we knew the design would be even more important. As such we started out with a fundamentally text-first approach seen across many projects over the past few years, with annotations (video/photo/document/etc.) that would appear alongside the text as you got to a particular point in the story.”⁸² Then something dramatic happened. Something so secretive that Dance admits to never having revealed it to anyone before his July 2014 interview with the

authors. Dance explains the secret success of the project this way: “The real reason that the project works as well as it does, and the real reason that it came together as well as it did, is that the thing that was done last, let me emphasize *last*, were the words. The [text story] to NSA decoded were the last thing we did.”⁸³

Dance explained that their initial approach was a traditional one with multimedia elements positioned along the side to accompany the text narrative.

But as we continued to develop it and storyboard it, we saw that it didn’t make sense to approach it that way. If you really do think about these things holistically in terms of how much time it takes to create each element, the written words are by far the easiest and most fungible part of the project. You can rewrite a lead pretty quickly, you can write into and out of things in the blink of an eye. It’s not like video where if you don’t have a particular shot you’re hosed—you can’t use it because you don’t have it! Video also takes a long time to recut and render. It’s not at all like an interactive which are obviously not easy to change after they’re done. So it was this real revelation that, it again speaks to the power of words in fact, that they are so flexible and so strong and so malleable that the idea of making them the last thing you do is anathema to most journalists. Most people would not be ready to hear this. Most people might ask— isn’t the project primarily copy? And the answer is no. NSA Decoded is not primarily anything. There are something like 12 interactives, 18 videos and 4,000 words and none of them work without the rest of them so it’s not primarily anything.

After rethinking the entire format of the project, Dance pulled all of the multimedia assets out of the sidebars and inserted them directly into the narrative. With the approval from the rest of the team, Dance said, “we decided to write into and out of the videos and graphics, essentially complementing the multimedia with copy. This was a truly liberating and infinitely flexible approach, as we were no longer beholden to any type of media to tell the story, which I think was a big part of why the project turned out to feel so cohesive.”⁸⁴

The blend of interactive elements, video, and written narrative in a thoughtfully designed package delivers something immersive and

engaging. In the first four days, hundreds of thousands of readers visited the project—many of whom spent as much as 30 minutes with the project.

“NSA Files: Decoded” was created during a time when multimedia journalists were rethinking their tools and approaches. With new devices seemingly released every day and consumer habit evolving to a more mobile browsing experience, new forms like “NSA Files: Decoded” are emerging in ways not confined by the technological norms that were developed in the days of Flash-based interactives. Dance and his team built a DNP that was fluid, responsive, and interactive across devices—without Flash. The fall of Flash led to the current advancements in standards like HTML5, CSS3, and JavaScript.

The techniques and technologies employed by Dance and his team are easily labeled “innovative” if viewed through the lens of the past, but that would overlook the fluidity of the Web and its supporting technologies. New platforms and evolving Web standards seem to die almost as soon as they are born. What the “NSA Files: Decoded” team did was more valuable than innovation; it was adaptation. This is a lesson worth noting as we face all the possible future iterations of the digital news package that will be created with technologies for devices that have yet to be invented—but will most certainly appear.

Dance perfectly sums up his years of multimedia experience by saying, “The value lies in the content, and there’s no template for content.”



Facing the Future

The aforementioned evolution and maturations of online news packages offer a mere glimpse of what digital storytelling has become and what might it be. In many ways multimedia journalists are still in the Morse code era of communication. The Web is still a restless teenager with a lot more growing up left.

One must ask, what works and why? The authors hope this examination of multimedia journalism in its current state will give a glimpse of what works now, as well as the potential and eventual impact that digital news packages will have on narrative structure in the future. Much of this depends on the

ability to find the right balance of medium, form, and content. The early evolution proves that repurposing existing content doesn't advance storytelling as much as more adaptive attempts. Many of the digital journalists mentioned in this book had an ability to recognize the unique characteristics of any new platform and seize its unique capabilities, an element critical for success.

The future will come and story will be there to meet us.

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