1 Newsgames

Piracy off the coast of the east African nation of Somalia has run rampant since the start of a civil war in the early 1990s, but attacks have become more frequent and more daring in recent years. By the spring of 2008, pirates were venturing well away from the Somali coast in order to reach the higher-value vessels that enter and exit the Gulf of Aden, gateway to the Red Sea and eventually the Suez Canal and the Mediterranean.

With numerous international governments concerned about the safety and viability of their shipping routes, the United Nations Security Council established Resolution 1838 in October 2008, calling on member nations to "deploy naval vessels and military aircraft" in support of maritime security in the region.[1] Regular conflict spurred an increase in worldwide coverage of Somali pirating. Most news outlets filed stories under international politics, as reporters cut the hull of a nation in anarchy through the waves of global commerce, defense, and other bastions of centralized authority.[2] Others offered human interest stories about the "fear and terror" that accompanied lengthy hostage situations on overtaken vessels.[3]

But *Wired* magazine's writers sailed a different tack in their July 2009 feature on Somali pirates, choosing to focus on economics over politics or personality.[4] In "Cutthroat Capitalism: An Economic Analysis of the Somali Pirate Business Model," Scott Carney observes that Somali pirating expeditions had become not only more frequent, but also more profitable. Payouts from ransom and plunder surged to levels one hundred times greater in 2009 than they were just four years earlier.[5] It stands to reason, argues Carney, that this escalation had arisen not from the depths of new wickedness and anarchy, but from the changing economic dynamics of piracy itself.

Unlike its more mainstream counterparts in the *New York Times* or the *Guardian*, *Wired*'s coverage looks more like a spreadsheet than an investigative report. It features eight full-color pages of text, infographics, and

diagrams, all meticulously illustrated and annotated by Siggi Eggertsson and Michael Doret. The graphics are playful, their rounded-edged pixel art abstracting boats, people, and maps into actors in an economic system (figure 1.1). The coverage itself takes a procedural rather than a narrative approach: it is divided into sections that describe the different steps of an attack, each section offering a textual description, an infographic, and a ledger or algorithm describing the economic dynamics of the topic.

The article's infographics run the gamut from mundane to remarkable, from bar graphs and pie charts to fever charts and a full-page map. The piece also deploys unusually complex typography to highlight different economic forces. Taken together, the spreads illustrate how a piratical Chief Financial Officer might witness a highjack-and-ransom attack from the vantage point of a ledger rather than a skiff. Each step calculates and summarizes its value proposition, and in so doing the feature explains the risk-reward system of ransom piracy by showing how the Somali pirates act according to a highly logical, if disruptive, self-interest.

Much about "Cutthroat Capitalism" reminds the reader of a videogame. Its visual design riffs off the blocky art of early coin-op and home console games, a method commonly used on screen and in print to apply videogame aesthetics to serious topics. But something else makes this decidedly static print feature resemble a game more than a column. Good games depict system dynamics rather than narrating specific accounts. Instead of telling a *story* about a particular pirate crew or hijacked freighter, the article characterizes the economic *system* of Somali piracy in general.

Of course, "Cutthroat Capitalism" isn't a game. It's a set of descriptions, formulas, and tabular data that *describes* the behavior of a system rather than *simulating* the system directly. A reader of *Wired* could get out a pencil and paper to determine a strategy for a hypothetical pirate raid, but it would be much easier to let a computer do the work.

Wired realized as much, so they paired "Cutthroat Capitalism," the article, with a Web-based game of the same name, one that operates under the same mathematical logic the article describes. The game puts the reader at the helm: "You are a pirate commander staked with $50,000 from local tribal leaders and other investors. Your job is to guide your pirate crew through raids in and around the Gulf of Aden, attack and capture a ship, and successfully negotiate a ransom."[6] The result effectively simulates capture and negotiation, synthesizing the principles of the print spread into an experience rather than a description.

The player begins on a map of coastal Somalia. The ship—represented by a skull token—starts in the city of Eyl, a pirate haven north of the capital

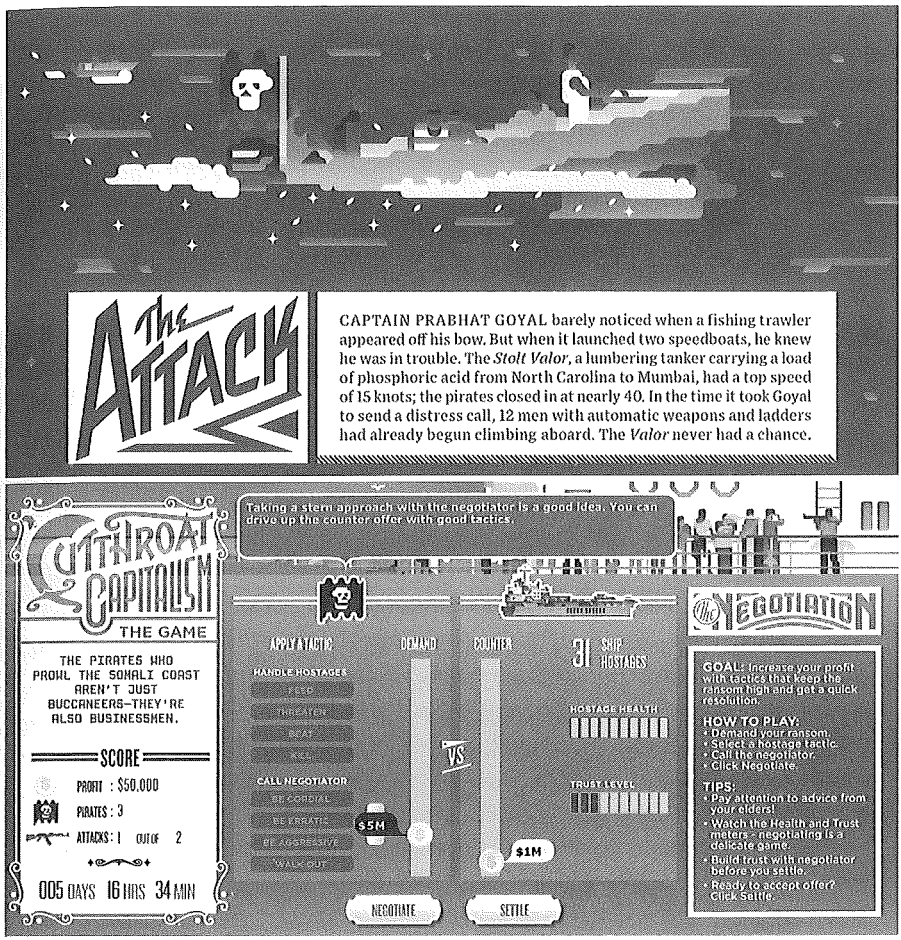

Figure 1.1

The similarities between "Cutthroat Capitalism" the magazine spread and *Cutthroat Capitalism* the game go beyond their visual design. Each describes the economic system of piracy off the coast of Somalia: one with words, the other through play.

of Mogadishu. When the player clicks on a part of the map, the pirate ship moves. Once in the Gulf of Aden, players click on passing ships—depicted as colored dots representing different classes—moving the pirate vessel toward a target. If the player's skull token intersects with one of these dots—be it container ship, cargo ship, cruise ship, tugboat, or one of five other classes—the game presents a chance to capture the ship and proceed with ransom negotiations. If the player fails to intercept, the crew is forced to sail back up the coast to try again.

The negotiation process consists of turns in which the player can choose a behavior to exhibit toward the hostages aboard the ship (feed, threaten, beat, or kill), a stance to take with the negotiating party (be cordial, erratic, aggressive, or walk out), and a ransom demand of up to $30 million. The game rules remind the player that the highest ransom ever paid was only $3 million.[7] A complex calculus of these choices determines the health of the hostages, the mood of the negotiators, and the likelihood of a counteroffer.

Hijacking a ship turns out to be a process just as methodical as buying a car. Negotiation proves effective only when the player quickly divines the value of the ship and its hostages, and then works carefully and methodically toward that monetary goal. If the player successfully negotiates a ransom, the reward (covered by the vessel's insurer) is split between the local government, the tribal leaders and investors who staked the journey, and the crew. But if the pirate crew abandons ship or the player's forces are overrun, the negotiation ends in failure.

A smart player will rarely fail—and that is the strongest rhetorical point presented in the negotiation process. If a ship can be captured, its hostages and cargo are always worth *something*. Failure arises mostly from poor planning or greed. The game helps players recognize this fact, encouraging them to optimize for many small bounties of one or two million dollars instead of fewer, larger ones—a realization that also frames the increasing number of attacks as matters of economics rather than wickedness. A $5 million settlement from a particularly lucky negotiation provides a smug sense of satisfaction, but it's rarely worth the risk of getting caught or losing bounties in order to spend the time needed to negotiate a ransom of that size.

Admittedly, the game does not simulate all of the elements of Somali pirating discussed in the article. The risk of capture after a ransom has been paid doesn't make it into the game, nor do the costs of maintaining a crew or mounting an unsuccessful attack (a real mission costs $30,000 per crew member, but normally only a quarter of missions are successful).[8] Some of

the subtleties that make the system rich (and make the article fascinating) are lost in the game—a situation probably attributable to the designers' desire to make the game manageable, learnable, and playable in short sessions. Nevertheless, the article provides only a disconnected, mathematical account of piracy, while the game offers a synthetic experience of the practice, one that unifies the disconnected algorithms of the print piece into a holistic account.

Cutthroat Capitalism (the game) explains how a pirate crew's modest, persistent efforts will produce significant results within the economic and social system of sea commerce that it disrupts. The print article addresses the issue from the perspective of the shipping industry. Somali piracy is just a modest cost of doing business for global freight. The time and money saved by going through the Suez Canal rather than around the Cape of Good Hope, combined with the relatively low cost of insurance compared to that of private security, makes good business sense for shippers. The game makes the case from the other side—that of the pirates. But it does something more, too: the game forces players to understand piracy by *experiencing* it in abstraction. The player quickly learns that the pirate's best strategy is to attempt a series of small ransoms, making the total cost to each ship low. Only 0.2 percent of vessels passing through the Gulf of Aden are successfully boarded by pirates, a fact that feels much more startling for the player of *Cutthroat Capitalism* than it does for the reader of its companion article.[9]

Newsgames

Cutthroat Capitalism shows that videogames can do good journalism, both as an independent medium for news and as a supplement to traditional forms of coverage. But what methods exist for creating and using such game in journalism? Are there different genres, forms, or styles? What are the editorial and publishing considerations for a news organization interested in pursuing such games? And why would such organizations want to take up such a practice in the first place?

Given the financial state of journalism today, everyone knows that a change is coming. Newspaper advertising revenue was down nearly 30 percent in 2009.[10] Some papers, especially smaller ones, have had to cut staff or shut down completely. Community bloggers and big city newspaper publishers may not agree on the best format for news, but they do agree that digital media will play an important role in its future. Yet, most of the discourse about the way news and computers go together has focused on translations of existing approaches to journalism for the Web.

For that matter, despite the differences in popularity and accessibility afforded by Web publication, much journalism practice remains the same online. Online news sites large and small still publish written stories similar to those inked onto newsprint. They upload video segments like those broadcast for television. They stream monologues and interviews like those sent over the radio airwaves. The tools that make the creation and dissemination of news possible have become more simple and widespread, but the process remains almost identical: stories still have to be written and edited, films shot and cut, audio recorded and uplinked.

But as *Cutthroat Capitalism* suggests, there is something different about videogames. Unlike stories written for newsprint or programs edited for television, videogames are computer software rather than a digitized form of earlier media. Games display text, images, sounds, and video, but they also do much more: *games simulate how things work* by constructing models that people can interact with, a capacity Bogost has given the name *procedural rhetoric*.[11] This is a type of experience irreducible to any other, earlier medium.

For this reason it is necessary to understand the uses of games in the news, both new and old, on different terms. This book offers an introduction to *newsgames*, a term that names a broad body of work produced at the intersection of videogames and journalism. In the chapters that follow, we explore the ways games have been used in the news from past to present, covering the different applications, methods, and styles of newsgames. We also make projections and suggestions for how newsgames might be applied to journalistic practice now and in the future. Each chapter takes up one key genre of newsgames. Some will feel like adaptations of traditional news content, while others take the first steps into unfamiliar terrain.

In 2003, Uruguayan game studio Powerful Robot released a game called *September 12th*, about the war on terror.[12] Its lead designer Gonzalo Frasca envisioned short, quickly produced, and widely distributed newsgames about *current events*, the subject of chapter 2. *Editorial* games like *September 12th* offer the videogame equivalent of columns and editorial cartoons, conveying an opinion with the goal of persuading players to agree with embedded bias—or at least to consider an issue in a different light. Other forms have emerged as well, from *tabloid games* that offer a cruder form of opinion to *reportage* games that strive to reproduce the unvarnished goals and style of daily news coverage. This chapter also covers the many issues that arise when creating current event games, including timeliness, accessibility, and editorial line. Creators of these games typically strive to release

such a game while the story it covers is still relevant, a challenge that increases with the depth of the simulation and the complexity of the event.

Chapter 3 explores *infographic newsgames*. Visual matter has long done journalistic work by visually representing data and thus synthesizing information. At the start of the twentieth century, larger newspapers began integrating visual representations of data into papers to help the reader draw connections between complex networks of information and events. The resulting "information graphics" come in many formats, from the traditional forms of pie chart, line graph, data map, and diagram to more experimental forms produced for digital consumption. The adaptation of infographics into computational forms has broadened their scope in addition to changing their methods of authorship. As digital infographics mature and become more interactive, they are becoming more like games. Players can explore information to find surprising new revelations, engage with processes that depict how information arises or interacts, reconfigure information to replay possible scenarios, or experiment with information for the simple enjoyment of play itself. Some infographics might take the form of proper games, while others are merely gamelike, adopting some of the conventions and sensations of games.

Current event games cover isolated stories in a short and accessible way, but longer, more detailed treatments of the news are also possible. In chapter 4 we present *documentary newsgames*, titles that engage broader historical and current events in a manner similar to documentary photography, cinema, and investigative reporting. Usually larger in scale and scope, these games offer experiences of newsworthy events, something impossible to capture in print or broadcast news. In the case of past events, they recreate times, spaces, and systems that one can otherwise only understand from archival film footage or imagination. We discuss different types of documentary games, including those that recreate the setting and progression of particular events and those that attempt to create procedural (rule-based) accounts of the logics of social and political situations.

Serious news coverage notwithstanding, it's worth remembering that games have been a part of the news for almost a century, since the first "word-cross" puzzles appeared in the *New York Sunday World* in 1913.[13] By the 1920s, the crossword was a sensation, becoming so popular that it even incited a moral panic. When the *New York Times* finally revised the form and made it more "literate" at the end of World War II, the public was sold. Since then, many newspaper readers look forward to the puzzles as a joyous and intellectually engaging part of the day. Puzzles have not always carried news content, but experiments such as editorial crosswords

and news quizzes have tried to do so. The past, present, and future uses of such *puzzle newsgames* are covered in chapter 5, from digital adaptations of traditional news puzzles and quizzes to the popular online casual games that represent both a threat to and an opportunity for news publishers.

Journalism comprises a set of values and skills that must be learned somehow—it is a literacy, a set of rules for reading, writing, and critiquing a particular domain of knowledge.[14] The first steps of journalism practice are traditionally taken in classrooms or at school newspapers, but certain qualities of videogames make them ideal supplementary media for a journalistic education. In chapter 6, we discuss *literacy newsgames*, those that offer direct or indirect education in how to become a good journalist, or for understanding why journalism is important to citizens and their communities.

Speaking of communities, at first blush videogames might seem to oppose cooperative action. When we think of games, from tabletop games like *Dungeons and Dragons* to board games like chess and *Risk* to videogames like *Super Mario Bros.* and *The Sims*, we normally think of them as private affairs. We play games indoors, at tables or televisions or computers. Even if we play with others, it is only in small groups. And while recent innovations in massively multiplayer online games (MMOGs) can support many hundreds or thousands of simultaneous players at a time, those players are usually widely distributed geographically. In chapter 7, we explore new genres of *community newsgames* that create and nurture local populations—often by situating games wholly or partly in the real world rather than in front of the screen.

As the technology with which news is created and disseminated changes, the very form of journalism alters itself. While the genres of newsgame just mentioned represent immediate opportunities for news organizations, many more might be developed in the future, either in response to technological shifts or as entirely new inventions. In chapter 8, we explore *newsgame platforms*, systems for the creation of new forms of game-based journalism that might supplement or replace current coverage in the future. In its most basic form, a platform is something that makes it easier to build other things.[15] The newspaper itself is a platform that supports research, writing, printing, distribution, and feedback from the public. The format of the evening news is a platform that describes how to order stories in a useful or compelling way, how to integrate advertising, and how to consistently produce a televised show. Starting from familiar yet alternative platforms for news like fantasy sports, we speculate on the novel newsgaming platforms (and new applications of existing computational

platforms) that might support journalism in the future. They range from the familiar to the bizarre—what if a news organization released a documentary game "yearbook" about the changes in a local community? What if Yoshi the dinosaur from *Super Mario World* needed health care, and he had to buy insurance at the going rates? What if the dynamics of New York City racketeering laws could be operationalized in *Grand Theft Auto*? These possibilities suggest how journalists might think about what they do in new ways, instead of simply translating old media for digital distribution. It is on this note that we conclude the book, with a call to action for journalists and news organizations in chapter 9.

Many of the types of newsgames this book covers are already established forms. *Cutthroat Capitalism* matches five of the seven genres of promising newsgames just mentioned: infographics, editorial, documentary, puzzles, and platforms. Though it might not be the best possible example of any of these individually, the amalgam shows how *Wired* attempted to integrate a game into actual journalistic coverage of a topic, not just to supplement a print edition with an online throwaway.[16]

The game's connection to infographics is obvious. The article makes extensive use of information displays, and the game's map draws on the tradition of abstracted information set geographically. While the link to infographics is primarily aesthetic, the fundamental purpose of both article and game satisfies noted information designer Edward Tufte's goals for information visualization: inform the reader, reveal insights into information that would otherwise be obscured, and synthesize complicated information into a legible format.[17] The infographic transforms raw data into visuals, while the game transforms that data into mechanics.

Wired's approach takes up documentarian goals as well. Stories about piracy off the coast of Somalia mostly enjoy coverage in the United States when events directly affect its citizenry and commerce. The seizure and subsequent standoff on the *Maersk Alabama* in April 2009 was notable for its violent resolution—Navy SEAL snipers shot and killed three pirates. Coverage of this incident certainly brought the issue of piracy directly to the American public's attention. But rather than pursue the issue further, the three pirate deaths and one capture provided journalistic closure: the evildoers "got what was coming to them." *Cutthroat Capitalism* directly challenges this tale, examining the structures of global trade that embed pirate attacks as a part of doing business.

The piracy game serves as both investigation and exposé. Its documentarian stance may not appear to take on the traditional firsthand infiltration of a global situation in progress, but it very much does: by uncovering

the dynamics and injustices of an economic system. At a rudimentary level, it even provides a "day in the life" account by putting the player in the shoes of one of its actors. By taking the role of a single pirate embedded in a complex network, the player comes to understand the logic by which all other pirates in that same system operate.

Cutthroat Capitalism might not seem much like a puzzle, because newspaper puzzles take very specific forms. But if puzzles refer to simple, abstract logic games pursued for mental pleasure, then aspects of the game start to fit the bill. The negotiation phase is reminiscent of a game of probabilities like rock-paper-scissors. The player plays three cards, the computer plays three, and the outcome alters the dynamics of the negotiation. Something more complex is at work here, too: the system boasts a preexisting state, as if the player is playing his or her cards against a given (but hidden) hand. The player must then reason about the state of the freight owners, and how they might respond. This casual noodling bears a resemblance to the chess or bridge problems that often appear alongside the crossword or cryptoquip. Negotiation in *Cutthroat Capitalism* satisfies our desires to outwit a system by finding the optimal moves.

The relevance and interest of piracy notwithstanding, the game's journalistic significance comes from more than its content. By publishing a print story tied directly to a game, in which each is based on the same factors, *Wired* has shown how a periodical can integrate games into its workflow. This workflow can become a model that might enable the regular production of these kinds of artifacts through organizational, rather than technical advances. The print and digital versions tell the story in two different but complimentary ways, allowing the writers, artists, and designers to share more than just a topic. Given journalism's troubled present and uncertain future, proving the feasibility of producing new and different media artifacts is perhaps even more important a task than creating new media artifacts themselves.

All of the topics discussed in this book make a common assumption: that journalism can and will embrace new modes of *thinking* about news in addition to new modes of production. Rather than just tack-on a games desk or hire an occasional developer on contract, we contend that newsgames will offer valuable contributions only when they are embraced as a viable method of practicing journalism—albeit a different kind of journalism than newspapers, television, and Web pages offer. Newsgames are not a charmed salve that will cure the ills of news organizations overnight. But they do represent a real and viable opportunity to help citizens form beliefs and make decisions.