Chapter 1

Economic Theories of News

NEWS IS A COMMODITY, not a mirror image of reality. To say that the news is a product shaped by forces of supply and demand is hardly surprising today. Discussions of journalists as celebrities or of the role of entertainment in news coverage all end up pointing to the market as a likely explanation for media outcomes. Debates about a marketplace of ideas reinforce the notion that exchange drives expression. Yet most people simply use the market as a metaphor for self-interest. This book explores the degree that market models can actually be used to predict the content of news and evaluate its impact on society. Focusing on media economics shows how consumers' desires drive news coverage and how this conflicts with ideals of what the news ought to be.

News stories traditionally answer five questions, the "five Ws": who, what, where, when, and why. On the other hand, economic models have their own essential building blocks: tastes, endowments, technologies, and institutions. The bits of information packaged together to form a news story ultimately depend on how these building blocks of economic models interact. What information becomes news depends on a different set of five Ws, those asked in the market:

1. Who cares about a particular piece of information?

2. What are they willing to pay to find it, or what are others willing to pay to reach them?

3. Where can media outlets or advertisers reach these people?

4. When is it profitable to provide the information?

5. Why is this profitable?

A journalist will not explicitly consider each of these economic questions in crafting a story. The stories, reporters, firms, and media that survive in the marketplace, however, will depend on the answers to these questions, which means media content can be modeled as if the "five economic Ws" are driving news decisions. If the five economic Ws dictate the content of the news, then we should be able to use our understanding of markets to analyze and even predict media content in the United States across time, media, and geography. The chapters that follow explore the power of market imperatives through three centuries of reporting, within different media such as newspapers, radio, broadcast and cable television, and the Internet, and across local and national media markets.[1]

The results range from the predictable to the counterintuitive to the speculative. News content is clearly a product. Its creation and distribution depends on the market value attached to the attention and tastes of different individuals, the technologies affecting the cost of information generation and transmission, and the values pursued by journalists and media owners. Though news is often defined as what is new and surprising, expectations of the familiar often drive consumption. While the expansion of news sources may open up alternative voices in the market, it can also create a tradeoff of breadth versus depth as the number of outlets increases. Economics does well in explaining the types of coverage that arise. Yet it faces limitations as a tool in evaluating the outcomes of media markets. Valuing the impact of news content involves valuing the outcomes of political decisions, decisions in which dollars are only one of the measures that help define social welfare. Despite these limitations in assessing the desirability of media and political outcomes, economics has a great deal to offer in explaining how the media operate. Chapter 1 develops the set of economic ideas and models that explain how the market generates news coverage and briefly discusses the policy levers available to influence media markets.

News as an Information Good

This book's title, *All the News That's Fit to Sell: How the Market Transforms Information into News*, raises questions about what is information and what is news. There are many ways to describe an event and many ways to convey these descriptions using words, images, and sound. I view information as any description that can be stored in a binary (i.e., 0,1) format.[2] Text, photographs, audio soundtracks, films, and data streams are all forms of information. I define news as the subset of information offered as news in the marketplace.[3] As a guide to what information products can be labeled as news, I use the market categories employed to devise Nielsen ratings, define advertising rates, and organize Internet sites. Much of my analysis will focus on news specifically relating to politics, government, and public affairs.

The news lends itself to economic analysis because it has the general characteristics of information goods, characteristics economists describe using terms such as public goods, experience goods, multiple product dimensions, and high fixed costs/low variable costs. Each of these features has implications for how information is transformed into a good through the marketplace.

Public goods are defined by a lack of both rivalry and exclusion in consumption. One person's consumption of a public good—for instance, an idea—does not diminish the ability of another to consume the good. A person can consume a public good without paying for it, since it may be difficult or impossible to exclude any person from consumption. In contrast, one person's consumption of a private good prevents another's consumption, and one cannot consume without paying for it. To see that news is more like a public good than a private good, consider the contrast between two products—an apple and a news story about apple contamination. If I consume an apple, it is not available for consumption by another. If I do not

pay for the apple at a store, I cannot consume it. The apple is clearly a private good. A news story about contaminated apples is more like a public good. If I read the story about apples, my consumption does not prevent others from reading the same story. I may be able to read the story, view it on television, or hear about it from a friend without paying any money or directly contributing to its cost of creation. In this sense, news goods are public goods.

You can divine a great deal about some products by conducting a search before you consume, since you can observe their characteristics. Furniture and clothes are examples of these search goods because you can learn about a product's quality by observation and handling prior to a purchase.[4] To assess the quality of other goods such as food or vacation spots, you need to experience or consume them. A news story about a particular event is an experience good, since to judge its quality you need to consume it by reading or watching the story. The notion that news stories vary in quality underscores that news products have multiple dimensions. Stories can vary in length, accuracy, style of presentation, and focus. For a given day's events, widely divergent news products are offered to answer the questions who, what, where, when, and why. News stories are thus highly differentiated products that can vary along many dimensions.[5]

The structure of high fixed costs/low variable costs that characterizes the production of information goods readily applies to news stories. Imagine that you set out to produce a day's edition of a newspaper.[6] There are tremendous fixed costs, that is, costs that do not vary with the number of units produced once you decide to make the first unit. You need to pay for reporters to research topics, editors to make sense of the offerings, a production staff to lay out and compose the paper, and a business staff to solicit ads. The variable costs, which by definition will depend on the number of units produced, include the paper, ink, and distribution trucks used to deliver the finished products. The first copy costs—the cost of producing the first unit of a newspaper—are extremely high relative to the variable costs. Once you have made the first copy of the paper, however, the additional costs of making another are the relatively moderate costs of copying and distribution.

These basic features of information goods—public goods, experience goods, product dimension differentiation, and high fixed costs/low variable costs—go a long way toward explaining which types of information ultimately end up being offered by the market as news. The difficulties of excluding people who have not paid for information from consuming it may discourage the creation of some types of news. We often define news as that which is new. The uncertainty surrounding the content of a story prior to its consumption, however, leads news outlets to create expectations about the way they will organize and present information. Firms may stress the personalities of reporters since these can remain constant even as story topics change, so that readers and viewers can know what to expect from a media product even though they may not know the facts they are about to consume. The role that journalists play in attracting viewers to programs creates a set of economic "superstars" who earn high salaries for their ability to command viewer attention.[7] This use of celebrity to create brand positions in the news also relates to product differentiation. The many different aspects of an event, such as which of the 5Ws to stress or how to present a topic, allows companies to choose particular

brands to offer. Yet the high fixed costs of creating an individual news product may limit the number of news versions actually offered in a market.

Four Types of Information Demands

At a newsstand, the *New York Times*, *People*, *Fortune*, and *Car and Driver* are all within arm's reach. These publications compete for shelf space in displays and attention in readers' minds. One way to make sense of the many different types of news offered in the market is to categorize demands for information by the types of decisions that give rise to the demands. Anthony Downs (1957) noted that people desire information for four functions: consumption, production, entertainment, and voting. An individual will search out and consume information depending on the marginal cost and benefits. The cost of acquiring information can include subscription to a newspaper, payment for cable television, or the time spent watching a television broadcast or surfing the Internet. Even information that appears free because its acquisition does not involve a monetary exchange will involve an opportunity cost; reading or viewing the information means one is forgoing the chance to pursue another activity. Since a person's attention is a scarce good, an individual must make a trade-off between making a given decision based on current knowledge or searching for more information.[8] The benefits of the information sought depend on the likelihood that a person's decision would be affected by the data and the value attached to the decision that is influenced. A person deciding how much information to consume will weigh the additional costs associated with gaining another unit of information with the additional benefits of making a better informed decision.[9]

To benefit fully from most types of information, a person needs to consume it. Consider how a person demands information for consumption, production, or entertainment. Information that aids consumption includes price, quality, and location data. Consumers searching for a good movie on Friday evening might buy a newspaper to get film reviews, viewing times, and theater locations. If they do not search out the information, they will not easily find a movie screening that matches their interests. People also search out data in their role as producers or workers. A computer network administrator might subscribe to *PC World* to get reviews for hardware purchases. If the administrator does not consume the data, the benefits from possibly making a better computer purchase for the office network are not realized. Entertainment information, information desired simply for itself and not as an aid in making another type of decision, is another clear example in which a person needs to consume the data to realize the benefits. A fan may follow the career of a celebrity for fifteen years or fifteen minutes. If the fan misses an interview of the favorite celebrity in the *People* edition or *Entertainment Tonight* episode the chance for enjoyment is missed, too. Because the people who benefit from the information express a demand for it, the markets for consumer, producer, and entertainment information work relatively well.[10]

A different calculus dominates the fourth type of information demand identified by Downs, information that helps a person participate as a citizen. A voter thinking about casting a ballot

for Candidate A versus Candidate B might consider how information will aid this decision.[11] The costs of gathering information about the candidates include reading and viewing time and subscription costs. For a given voter there may be a large difference in value between the policies of Candidate *A* versus Candidate B. Additional information about the details of the candidates' policies may help a voter choose the correct candidate from the voter's perspective. The probability that a given voter will change the final election outcome, however, is extremely small. The net expected benefits to a voter of becoming more informed about political policies are defined as (Benefit of Candidate *A* versus Candidate *B*) × (Increase in probability that voter makes the correct decision) × (Probability vote is decisive in election) — (Costs of becoming informed). This value would be negative for nearly all individuals in an election, since their odds of influencing the outcome are infinitesimal. Downs established that voters do not demand information on policy details and choose to remain "rationally ignorant."[12]

The logic of free riding in politics predicts that an individual will not vote, since the likelihood of making a difference is so small. The theory of rational ignorance says that a person will not learn the details of policy since the returns for casting an informed ballot versus an uninformed ballot are negligible. These theories are born out in part by the levels of political participation in American politics. In 2000, only 51.2% of eligible voters cast ballots.[13] Survey evidence in 2000 confirmed a state of affairs evident since the origin of national opinion surveys—most Americans cannot answer questions about the details of government or the specifics of policy proposals. Although rational ignorance and free riding may describe the lack of demand for political in-formation among the majority of Americans, there is a sizable minority that votes and stays informed. For the producers of news, this translates into a large absolute number of potential viewers and readers interested in public affairs coverage.[14]

Why would individuals demand information about politics in a world in which a person's vote is unlikely to have an impact? At least three explanations may hold true, each of which involves a demand for knowledge for its own sake. Some people feel a duty to vote and derive ideological satisfaction from participating in politics. For these individuals, learning about candidates and policies is part of performing the duties of democracy. The people participate and learn not because they believe they will make a difference, but because they believe this is the proper way to live in a democracy. A second explanation for learning about policy details is that for some individuals knowledge about politics is inherently interesting. Interest in statistics, strategies, and arcane details about basketball gave rise to ESPN's *SportsCenter.* The intricacies of design and execution fuel interest in the *Food Channel*. In a similar way, C-SPAN and *The NewsHour with Jim Lehrer* become destinations for those entranced by life inside the Washington Beltway. A third demand for political coverage lies in the human elements of drama embedded in political races. The human interest stories involved in elections will attract a segment of viewers in search of entertaining stories. But satisfying this demand will lead news outlets to substitute horse race coverage of who is ahead and who is behind for policy discussions, and will shift the focus to candidates' personal lives rather than

their policy pronouncements.

If a voter approaches learning about politics as an investment decision, the result will be rational ignorance.[15] Why spend the time divining the proper policies for world trade, global warming, or missile defense systems, since your likelihood of affecting these policies is minuscule?[16] The low demand for public affairs information as voter information translates into fewer incentives for outlets to offer the coverage and sparse rewards for journalists interested in providing this type of news. Rational ignorance among consumers generates rational omissions among reporters. The result may be less than optimal amounts and types of public affairs coverage.

Duty, diversion, and drama will generate some expressed demand for news about government and politics. The viewers who believe in the duty to become informed, the readers who follow policies with the interest of sports fans, and the consumers who like the drama of elections and the foibles of potential candidates all express interest in some form of political coverage. By consuming this information these consumers may become more informed voters. The improved precision of their decisions may benefit others, too, who have not taken the time to follow news about politics. Since readers and viewers who learn about government do not calculate the full benefits to society the demand for news content about public affairs gives rise to what economists term positive externalities. The broader benefits to society are really external to the consumers' decisions about how much time and energy to devote to reading and viewing news. A consumer may watch political talk shows to learn who is ahead in the polls or who has fallen into scandal. As a by-product, the viewer learns about the details of policies and makes a more informed voting decision. The aggregation of this effect across readers and viewers means that more informed decisions are made in elections. The ultimate impact of information will depend on how the markets for political information work, a topic discussed later in the chapter. The point here is that since individuals do not calculate the full benefit to society of their learning about politics, they will express less than optimal levels of interest in public affairs coverage and generate less than desirable demands for news about government.

A Spatial Model of News Product Locations

Each day editors and producers assembling news products choose stories that answer the five Ws of reporting. Reporters covering the same event for separate news outlets will answer these five questions differently. Versions of the news will vary because assessments of what transpires, judgments about the relative importance of actions, or decisions about the likelihoods of causes and effects may differ. Consumer interests also vary widely. Some readers want the latest from Hollywood, others follow events in Washington, and some want to know what happens in their hometown. If news products were readily transparent and fully understood before consumption, then readers or viewers could consume only the mix of stories they were interested in. If developing and transmitting a story were costless, the market would offer as many versions of a story as there are demands among consumers. Yet the nature of

news stories means they need to be consumed to be fully understood, and the costs of assembling these stories mean that only so many versions will be told. The varieties of interests, uncertainties about product content, and costs of constructing descriptions of events all combine in the marketplace to generate "brands" in news. Brands economize on uncertainty and search costs by presenting consumers with a readily understood approach to the news. In this sense, brands allow the familiar to guide consumer choices about what is new(s).[17]

Economists model the decisions about what product brands will be offered in a market similarly to decisions producers make about what physical spaces to locate their offerings. Models of product variety are thus often called "spatial models" of product location. An early forerunner of these location models is the theory developed by Harold Hotelling (1929), whose model of firm location answered the following question: If two ice cream vendors could choose to locate on a beach filled with hungry consumers, where would each locate? Customers prefer not to walk on the sand in the sun, so they patronize the nearest vendor. Knowing this, each vendor chooses to locate at the exact middle of the beach, so each gets half the market. This result laid the groundwork for the application of spatial models to politics, where Anthony Downs (1957) showed that two parties in search of votes would similarly converge on the middle of the road in their selection of policy positions. Predicting the locations of products in these models is much more difficult if the number of products is greater than two, if the products are defined along more than one dimension (e.g., if the ice creams can vary in quality in addition to vendor location), or if the number of consumers with tastes for different locations varies greatly depending on the type of good offered.[18]

The assumptions and operations of a spatial location model fit the branding of news in the marketplace well. News directors making decisions about what stories will fill the twenty-two minutes of content on a half-hour broadcast, or editors running story conferences about front-page layouts, all seek to carve out a niche through their content selections. Their decisions about what information to offer as news will depend on audience interests, costs of assembling stories, readers'/viewers' expectations about their treatment of the news, and the likely actions of their competitors. Traditional definitions of what is newsworthy rely on the formula of who, what, where, when, and why. I believe that the news goods offered in the market are actually shaped by another set of five Ws. The information that is produced will depend on how editors and producers answer these five questions: Who cares about a particular piece of information? What are they willing to pay to find it, or what are others willing to pay to reach them? Where can media outlets or advertisers reach these people? When is it profitable to provide the information? Why is this profitable? A spatial model of location captures well how these influences determine the types of news offered in a marketplace. In a previous work called *Channeling Violence: The Economic Market for Violent Television Programming* (1998), I developed a simple spatial model of the profit-maximizing decisions made by entertainment programming strategists to offer shows with varying levels of violent content. Because decisions about news content are similarly driven by profit calculations, a comparable model described below helps explain the level of public affairs content in news products. Though the model applies to print, broadcast, and Internet outlets, I will for simplicity develop the

description of news goods offered by television programmers.[19]

Viewers vary in the degree that they want to know about the details of politics and government. Some news programs focus mainly on entertainment, health, or life-style information and carry very little public affairs information. These programs, which include *Entertainment Tonight* and *Inside Edition*, are often labeled as "soft news."[20] At the other end of the spectrum, programs such as *The NewsHour with Jim Lehrer* are called "hard news" because of their focus on the details of government and politics. In between there are programs that offer a mix of soft and hard news topics.

Assume that there are three types of television news viewers: those who prefer soft news programs, those who like a mix of hard and soft news topics, and those who want programs with high levels of public affairs content. The returns for capturing these viewers will depend on how much advertisers are willing to pay, which is based on the demographics of those watching. A programmer deciding on the level of public affairs coverage to offer in a news program will consider the number of viewers attracted to that type of information, the value advertisers place on these viewers, and the number of channels contending for viewers' attention. Profits for a given news program will also depend on the costs of assembling the information and producing the stories, which may vary by type of news product. There are a finite number of channels contending for viewer attention, a limit derived from the combination of technology and regulation involving spectrum signals and cable channel capacity. A news producer will decide on whether to offer a program with low, medium, or high levels of public affairs content depending on the profits offered in each of these "genres." Channels will eventually be distributed across the news programming spectrum so that the profits of a firm are equal across the three types of programming. If profits are not equal, then a channel has an incentive to switch programming into the news genre with the higher profits. This simplified model yields the following predictions about news programming.[21] In describing these hypotheses I will use the term "soft news" to refer to programs with low levels of public affairs information and "hard news" to refer to shows with high levels of public affairs information.[22]

Soft news programs will be more prevalent if advertisers value those viewers more highly. In the terms of the model, the number of programs with low public affairs content will increase as the value of soft news consumers rises. An increase in advertising rates makes the soft news programming market more profitable, which draws programmers to this genre until profits are equalized across the three types of programming (low, medium, and high levels of public affairs news). If viewer satisfaction is related to the number of channels offering particular types of programming, this implies that consumers of soft news programming should be more satisfied with television news since they will have more viewing options as the number of channels offering this type of information product increases.

If programmers pay less for soft news, then they will be more likely to program this type of information. In equilibrium, the profits of firms in each of the three markets of low, medium,

and high public affairs content will be equal. Consider what happens, however, if soft news programming becomes less costly. Profits in this genre increase. More firms will leave the high and moderate public affairs programming options and start to offer soft news programming, until profits are once again equalized. Relative to a world where all programs cost the same, if low public affairs content is cheaper, then it will be more likely to be offered by channels. Thus as the cost of soft news programming decreases, the number of soft news programs increases and the number of shows with moderate or high levels of public affairs coverage decreases. Similarly, if hard news programming were to decrease in cost, then the number of channels offering this genre would increase and soft news offerings would decline. Costs here refer to the fee that channels pay for the program, which may be the cost of producing the program if it is produced internally or the price paid to outside production companies if the show is produced by another company.

As the number of channels increases, the number of soft news programs will increase. Technology often sets constraints on the number of channels contending for viewers in a given area. The Federal Communications Commission's (FCC) allocation of the broadcast spectrum limits the number of over-the-air signals broadcast in a market. The physical capacity of cable technology limits the number of cable networks offered in a given franchise area. Over time these constraints have relaxed, so that viewers can choose from an increasing number of channels. Reception of television programming through satellite dishes has also expanded the number of channels. The model demonstrates that as channels are added, the number of soft news programs will increase. New entrants distribute themselves across programming genres so that equilibrium profits remain equal across the low, medium, and high public affairs content market niches. As the number of programs offered increases, the number of competitors in each of these market niches will increase. Markets across the United States currently differ in the number of channels offered within a viewing area. The model predicts that the number of soft news programs offered should be higher in areas with a higher number of stations or channels overall.

The number of soft news shows grows as the number of viewers attracted to this genre increases. Broadcasters sell audiences to advertisers. As the number of viewers attracted to programs with low public affairs content increases, profits from offering this type of programming will attract more channels into this market. The demographic audience for television changes by the hour each day. As the number of viewers of soft news programming increases, holding other factors constant, programmers will find it more profitable to offer shows with low public affairs content to attract these viewers. Thus one would predict that soft news offerings will vary in part as the television audience changes during the day. Cities also vary in their demographic makeup, so that cities with higher numbers of consumers of soft news should have more programs aimed at these viewers.

The average rating for soft news programs goes down as the number of soft news programs increases. By assumption the number of viewers attracted to programming with low public

affairs content is fixed. Consider what happens as the number of overall channels expands or the value that advertisers place on consumers of soft news programming increases. The model predicts in both cases that the number of competitors offering soft news programs will increase. This means that the number of viewers of a soft news program will decline. This is a reminder that if programming in a particular niche becomes more attractive to broadcasters—for example, because of an increase in advertising rates—this does not mean that the rating for a show in that niche will increase.[23]

If broadcasters were led to internalize the benefits to society of hard news programming, more programs with high public affairs content would be offered. If news about politics and government contributes to better voting decisions by readers and viewers, these effects are not generally reflected in the decisions of broadcasters since they are not led to consider the full benefits to society of their shows. If broadcasters did consider these benefits, their decision-making calculus would change. Assume that channels offering high public affairs content programming did consider the positive externalities generated by their shows.[24] As the benefits of the externalities generated by a program increase, programs with high public affairs content become more profitable. This causes programmers to shift into this program niche and away from the provision of shows with low or moderate levels of public affairs information. Hence, as the beneficial externalities generated by hard news programs increase, more of these programs would be offered if channels were led to consider the total benefits to society of these shows.

An additional implication of the model rests on how one interprets programming costs. The costs of assembling and producing a story are a function of technology and the level of story quality chosen. Variations in quality within a genre of programming are not represented in this model, since all outlets providing a given type of news are assumed to have the same cost structure. Yet the model does imply that there may be a trade-off between breadth and depth in the news marketplace. A drop in cost within one genre of coverage will stimulate entry into that area as competitors seek the (temporary) lure of greater profits. If hard news costs were to decrease, for example, the model indicates that the number of outlets offering news with high public affairs content will increase. Costs might decline because of a new technology that made news production or transmission cheaper. Costs might also decline if there were changes in professional norms about story quality, corporate ownership preferences about journalism standards, or regulatory expectations about news content. This would reflect a change in the definition of what constitutes quality news within a given programming genre, for example, what constitutes quality hard news programming. In this sense lower costs would translate into less depth in providing the details of public affairs coverage. For viewers of programs with high public affairs content, the trade-off implied means that changes in costs will yield more outlets offering hard news and fewer details offered within a hard news story. Overall, the limited resources provided by advertising or subscription revenues create here a tradeoff between the number of outlets in a genre and the depth of coverage offered.

Economics is often defined as the study of individual decision making under conditions of scarcity. The spatial model of news outlet location presented here shows how the individual decisions that generate news content can be explained by the basic building blocks of an economic model: tastes, endowments, technology, and institutions. These factors interact in the spatial model so that the news coverage that emerges can be predicted as if news outlet managers were answering the 5Ws of the information marketplace. The tastes and endowments of readers and viewers enter the model through two questions: 1) Who cares about a particular piece of information? and 2) What are they willing to pay to find it, or what are others willing to pay to reach them? These questions stress that preferences of readers and viewers will matter in the marketplace depending on what demographic group holds them. For example, since individuals vary in terms of their endowments of wealth, advertisers will care more about reaching certain demographic groups depending on the products they hope to sell to these individuals. News products sold through subscription will also vary content depending on the willingness of individuals to pay for certain types of coverage. Technology enters the picture in the third and fourth questions: 3) Where can media outlets or advertisers reach people? and 4) When is it profitable to provide the information. Technology of production and distribution of information affects how audiences can be assembled to be sold to advertisers, how easily information can be gathered, and how many outlets can ultimately survive in the marketplace given the interests of consumers and the revenues derived from subscriptions or advertising. The influence of institutions can be found in the fifth W: 5) Why it is profitable to provide a given amount or type of news good? Institutions such as copyright laws, privacy statutes, and the First Amendment form the set of property rights that define how news goods are marketed.

Shared Preferences

If information products were costless to produce, each person would be able to choose a unique version of the day's events corresponding to tastes for style and content. If news producers offered content based on a motive other than profit, such as a desire to inform readers or viewers about decisions likely to affect their civic lives, then interests would not drive content. The fixed costs of assembling a story limit the number of versions that will be offered in the marketplace, since there may not be enough individuals interested in a story to cover its initial costs of assembly and distribution.[25] The profit motive also dictates that the type of news stories delivered will depend in part on consumer tastes. This means that whether a story is covered or the way that it is described will depend ultimately on shared preferences, the degree that people express a taste for a particular type of news. The spatial model reflects this by dividing consumers into three separate groups depending on their preferences for low, medium, or high levels of public affairs content. Shared preferences are also important in explaining at least three effects in information markets: externalities generated by consumption of news coverage; the bundling of different types of information within the same news product; and the epidemic-like spread of interests, called "information cascades," among readers or

viewers.

Whether a particular type of news is offered in a marketplace will depend on the number of people who share an interest in the topic and their value, as measured by their willingness to pay for the information good or the willingness of advertisers to spend dollars to reach these consumers. In stark terms, this means that the degree that my desire to learn about a news topic will be fulfilled depends on who else cares about the topic. Newsworthiness will be a function of numbers of consumers and their value in the marketplace. If hard news information is desired by an educated group of consumers, a local news print or broadcast outlet may provide it if the number of these consumers is sufficiently large and the advertising or subscription fees are lucrative enough. Once the public affairs information is produced, it is a public good available to all. In this sense the presence of a core group of consumers large enough to generate coverage can be thought of as generating a positive externality, since other consumers may benefit from the coverage even if they were not the targets of advertisers and did not pay for the creation of the information. Hard news generates an additional positive externality, since its consumption may lead to more informed voting decisions that yield better public policies for a community. How many educated consumers it takes to generate hard news coverage in a local print or broadcast market is an open question. The Internet offers a way to aggregate like-minded consumers across a broader area, so news versions might be more likely to be offered through this aggregation. The survival of Internet news sites will still depend, however, on the ability to gain revenues through advertising or subscription fees.

Shared preferences also affect the combination or bundling of information in news goods. The nature of broadcast television means that stories proceed one at a time, with the same number and type of stories provided to each consumer of a broadcast. This means that story editors will choose news topics by considering the effects on the likelihood that target consumers will stay with the news program and not switch channels. This is a general aspect of television markets, where programmers must consider the ability to retain consumers to sell to advertisers rather than the intensity of preferences for viewers for particular types of programs. Newspapers do not face the same constraint, since the physical layout of the news allows readers to skip entire stories or sections while heading for their favorite types of news.

In an Internet world, where stories could be consumed and priced individually, there are still incentives to bundle stories together as a single good rather than to price them individually. Shapiro and Varian (1999) stress how bundling goods together can narrow the dispersion of prices consumers are willing to pay for a good, which can lead to higher revenues for producers since prices are often set in relation to the lower willingness to pay for goods in an information market. Though they make this point in reference to the bundling of software components, the same argument can be modified (as it is below in table 1.1) to apply to news products.[26] Consider two consumers, Matthew and Jamie, who vary in their willingness to pay for two types of information, domestic news and foreign news. If the day's domestic news and foreign news were each sold separately for $1.20, then Matthew would buy the domestic news and Jamie would buy the foreign news and the online service would earn $2.40. If each product were priced at $1.00, Matthew and Jamie would buy both products and

the news provider would earn $4.00. If the domestic and foreign news were combined into a single product and priced at $2.20, however, Matthew and Jamie would each buy the bundle and the news outlet would earn $4.40. Shapiro and Varian point out that bundling allows producers to charge higher prices in some cases, since the willingness to pay for the combination of goods is less dispersed than the willingness to pay for the individual goods. They note that this explains outcomes in media markets, such as the combination of articles in a magazine and the combination of issues of a periodical into a unit offered as a subscription.

The nature of news as an experience good also gives rise to shared preferences. Because it is at times difficult to assess the quality of an information product without consuming it, readers or viewers will use the consumption of others as information about the desirability of a given good. This phenomenon can give rise to information cascades, in which the actions of a small initial group of consumers can multiply or cascade through a market as later consumers base their decisions on the actions of earlier readers or viewers.[27] When a story initially is offered in the marketplace, readers or viewers may decide to consume or ignore it. Their reactions can be visible to others, since individuals often learn through conversation what programs, publications, or stories others are following. To the extent that consumers base their decisions in part on evidence of prior consumption by others, demand for particular news products may multiply in a cascading fashion. The social desirability of these cascades is an open empirical question. If the early readers or viewers choose wisely, then later consumers can save on search costs by taking into account the fact that others have followed a given news program or account. If the early choosers go down the wrong path, such as choosing a given version of a story that neglects facts available at the time, then others may follow suit and express a demand for a particular story or news version. These effects are variously referred to as cascades, epidemics, buzz, or bandwagons, and will be explored below in the section on the marketplace of ideas. The key point here is that the nature of news as an experience good can lead individuals to use the consumption of others as a factor in deciding what types of news to demand.[28]

TABLE 1.1

Incentives for Bundling News Goods

	Willingness to Pay For	
	Domestic News	*Foreign News*
Matthew	$1.20	$1.00
Jamie	$1.00	$1.20

Number of Competitors

"More news is better news" appears to be an axiom favored in discussions about the news marketplace. A corollary is that more competitors will yield better outcomes, as is often the case in the market for other goods. Yet the impact of the number of competitors on the quantity

and quality of reporting is actually a question left open by economic theory. Models that explore how the number of competitors can change the content of news focus on the trade-off of breadth versus depth, the herding instincts in coverage among journalists, the impact of ownership on program duplication, and the race to the bottom in quality selections. The likely impact of each of these effects on a given media market is an empirical question.

The spatial model of news location reveals how an increase in the number of competitors can set up a trade-off between depth and breadth in coverage. Consider the increase in the number of competitors allowed in a marketplace that arises if the FCC were to expand the number of spectrum allocations in an area. This increase in *N* could lead to an increase in the outlets offering news in each of the news categories of low, moderate, and high public affairs content. Consumers might be more likely to find a program closer to their ideal show, since there will be more programs in each of the genres of news programming. Suppose, however, that the costs of news programming with moderate amounts of public affairs programming were to drop. This might occur if firms were able to buy news from a wire or video service rather than make their own stories, or if the firms simply reduced the hard news portion of their mix of stories because they no longer felt regulatory pressure or professional scrutiny of their "public service" function. In this case more outlets would be attracted by the temporary profits in moderate news programming, which would increase the total number of options offered to viewers in this genre. The drop in cost here can be viewed as a decrease in product quality, as it could result in less information being offered in the news product. Yet this decrease in depth is accompanied by an increase in breadth, if one sees more viewing options in a given category as representing more choices for some consumers. This shows that under some circumstances, the market for news locations can yield more breadth of outlets at the same time that quality of coverage or depth is declining.

A race to the bottom in news coverage is another way to model how competitor numbers can influence news content. Suppose that there were only a small number of viewing options in a broadcast market, a situation enjoyed by the three major networks in the early decades of television. With a small number of firms, collusion about product quality or composition can be easily facilitated. One could view news directors from the broadcast networks in the 1960s as fairly confident that their competitors would provide nightly news programming with high public affairs content. The FCC at the time required local broadcast stations to report on their public affairs coverage, so regulatory pressures reinforced the focus on hard news. The networks were owned by, or identified with, individuals willing to trade-off some profits for the psychic rewards of being identified as good corporate citizens. The industry trade association, the National Association of Broadcasters, helped facilitate quality restrictions through broadcaster codes. As cable technology and changes in spectrum allocation generated more competitors in the television marketplace, however, it became harder to maintain informal restrictions on the type of information products offered. Collusion about quality, even if it has positive externalities for society, is harder to maintain as the number of potential stations that might defect and offer a more popular programming genre increases. This yields a version of a race to the bottom. As the number of competitors increases, it becomes more

likely a station will offer soft news as a programming alternative. This will lead eventually to a model where competitors compete to locate in all three programming genres rather than only two. The diversity of viewing options has increased, which can translate into greater consumer happiness. The decline in the number of outlets offering hard news programming, however, can lead some to prefer the outcomes where competition was less likely to yield soft news programming since this type of programming carries fewer civic benefits (i.e., positive externalities).

These examples from the spatial model show how an increase in the number of competitors may increase diversity but may decrease quality, as measured by depth of coverage or type of news programming offered. Models also exist that show how an increase in the number of competitors can actually decrease diversity, as measured by the number of unique perspectives or story selections offered in a marketplace. If an increase in competitors increases the number of journalists covering a given story, this can ultimately lead to a herding phenomenon that reduces the number of original takes on a story. As the number of journalists covering a story grows, an individual reporter may be more likely to simply go with the angle and events developed by previous reporters. The individual journalist faces the decision of whether to incur the costs of creating a story from scratch or taking the path pursued by other reporters. In this situation an increase in the number of journalists who have covered a story in a particular way increases the signal to a subsequent reporter that this is the best way to pursue a story. In addition, journalists may face greater penalties within their news organizations for going against a perceived wisdom in coverage the greater the consensus is among journalists covering a story. This herding reduces the likelihood that each journalist will investigate and write a unique story. In one sense this is efficient, since fewer resources overall are devoted to the fixed costs of building the details of a story. Herding can also lead to errors of fact and interpretation, however. If the early reporters investigating a story get it wrong, herding by later reporters can magnify the problem.[29]

Competition can also decrease diversity in situations where separate ownership of outlets leads to the duplication of news offerings. This result was first developed in a model of television programming developed by Steiner (1952), who contrasted programming outcomes when channels were owned by a monopoly versus separate competitors. To see how a monopoly might lead to more diverse news products, consider a market with the following characteris-tics.[30] There are three types of news programming (soft news, mixed news, and hard news) and three television channels. Consumers only view their most preferred type of programming; if it is not offered, they do not view news programming. Assume there are 5,000 viewers who prefer a moderate amount of public affairs coverage, 2,500 who prefer soft news, and 1,250 who prefer hard news. If the three channels are controlled by a single entity, then this monopolist will choose to broadcast each type of news. This strategy will garner 8,750 viewers that the monopolist can sell to advertisers, since each type of viewer will prefer watching their favorite type of news over nonviewing. Consider what happens, however, if each channel is owned independently so that there are three competitors in the marketplace. In this situation two channels would show programs with moderate amounts of public affairs

programming and split the market for these viewers, so that each channel got 2,500 viewers. The third channel would offer soft news programming and gain 2,500 viewers. Overall, 7,500 consumers would choose to view television and 1,250 would not view news programming. With each of the outlets owned separately, no channel has an incentive to provide hard news programming. The monopolist cares about total audiences for the three channels and thus ends up offering programming that may only appeal to a small segment of the audience. Each outlet in the competitive market cares not about the total audience viewing but about the number of viewers attracted to its show. This logic leads to program duplication, since it is more profitable for two channels to show the same genre of moderate public affairs and split the audience for this type of information than for one of the channels to offer moderate and another offer hard news. Under these assumptions, increased competition leads to decreased diversity in news offerings.[31]

Ownership

Owners vary in the degree that they seek profits, public goods, or partisan ends. The spatial model assumes that profit-maximizing news media outlets value audiences based on consumers' willingness to pay for information or marketability to advertisers. Since many print, broadcast, and online news organizations are owned by publicly traded stock companies, taking profit maximization as the prime motive for news firm managers has credence. The spatial model makes clear that the pursuit of profits does not mean that all outlets will choose soft news or that none will offer hard news. The variations in consumer tastes and differences in production costs will generate an array of news offerings. Some companies or programs will develop brand positions that signal a low amount of public affairs coverage while others will develop a reputation for high public affairs content. In both cases the pursuit of profit drives the brand location and decision about a day's news content and style.

When ownership control resides in a family or individual, additional motives may come into play with the operation of a news outlet. The theory of rational ignorance clearly demonstrates that there is a divergence between what people want to know and what they should know. If a newspaper or television station covered topics only with an eye toward revenues and ratings, then information important to civic decisions might not reach readers and viewers. When ownership is concentrated in an individual or family, then these people may take pleasure in sacrificing some profits for the sake of the public good (as they perceive it). These owners may identify with the communities their outlets are published in and try to encourage civic participation through information provision. This is one of the ideas behind public policies that encourage local control of media outlets. The owners may also enjoy the recognition that goes with public service actions. Here the provision of news about public affairs may earn an owner a reputation for altruism. The very fact that ownership of media outlets provides the chance for public recognition means that these companies, like sports franchises, may be more likely than other firms to have control concentrated in families or

individual investors.[32] Ownership by publicly traded stock companies, however, is increasingly the dominant form of control in media industries.[33]

While it may not always be profitable to supply public affairs information, the impact of news about government and politics creates a third motive for news outlet owners—a desire to influence the outcome of elections. This is most evident in the early evolution of the popular press in the United States. In the eighteenth and nineteenth centuries, political parties provided newspapers in the United States with direct and indirect support. Some outlets were published by the parties. Other newspapers were supported through the awarding of public printing contracts. Parties also provided sympathetic papers with payments in election years. Newspapers were clearly identified with particular parties in the same way that news outlets today have brand reputations for their mix of hard and soft news. In the late nineteenth century the rise of advertising, innovations in printing technology that increased the importance of scale economies, and demographic changes in the size of the reading public made it more profitable for newspapers to adopt "objective" or nonpartisan approaches to public affairs. Chapter 2 explores how objectivity evolved in the market as a commercial product, as publishers frequently found it more profitable to remove partisan coverage in order to attract more readers.

Charges that press outlets are biased toward a particular party continue to this day.[34] Ownership theory offers three explanations that would be consistent with charges of partisan bias. The spatial model indicates that news outlets will choose brand locations in part with an eye toward audience tastes and the location of competitors. To the extent that it is profitable to cover public affairs from a Democratic or Republican perspective, news outlets may stake out niches with these brand identifications. This may be particularly true in arenas where there are multiple news outlets contending for attention, such as cable news channels or Internet websites. A second explanation would be that in firms controlled by a family or individual, the owners are willing to trade off profits for political ideology. In these situations a family might pursue a partisan agenda in the press even if this came at the expense of some advertising or subscription revenues. The final explanation for partisan bias lies in the difficulties of owner control in large companies. Publicly traded stock companies are often large entities that involve the delegation of decision-making authority among hundreds if not thousands of workers. Even if a firm's board of directors is out to maximize profits and its managers adopt this goal, the difficulties of monitoring employee performance because of hidden information or action means that journalists may have some freedom to inject bias. The degree to which partisan ends are still consciously pursued in media industries is pursued further in chapters 3 and 6.

As ownership of news outlets passes to companies in multiple business lines, a separate set of ownership influences may affect media content. If high public affairs content is chosen as a profit-maximizing brand location, then transfer of ultimate ownership to a nonmedia company may not affect the mix of news stories offered. If hard news is offered by a firm because of ideological or personal satisfaction by workers or owners, however, the transfer of a news outlet to a nonmedia company could bring a change in news coverage. Self-coverage, self-

promotion, and self-dealing are three additional worries associated with ownership of media properties by conglomerates. News workers may be reluctant to provide unfavorable news coverage of the parent company. Allegations of this nature have been made about ABC's treatment of stories about Disney World and NBC's handling of information about the nuclear power industry, a sector important to its parent company General Electric. Companies that provide entertainment programming as well as news may be tempted toward self-promotion. As soft news becomes prevalent in many news venues, companies may prefer to promote their own entertainment products during news program coverage of television, music, and movies. Self-dealing may also arise from the increasing trend toward vertical integration in information industries. When a company controls both information conduits and content providers, there are circumstances under which the firm may favor internally produced news programming over news content offered by a third party. The conflict between Time Warner—which owned cable systems and CNN—and Fox over the inclusion of the Fox News Channel in New York City cable packages highlights the potential for these problems.

Technology

If costs can drive content in media markets, the prime determinant of costs is the technology of information production and distribution. The creation of a news story involves large first copy costs and often negligible additional costs for more copies of the story. Producing a story entails the costs involved in assembling the facts of an event, paying for the expertise of a reporter with valuable experience and contacts, and hiring editors who can help make sense of what information belongs in the news product. Once the version of the story is produced to be sold to the first viewer or consumer, the marginal cost of producing another copy is relatively small in newspaper markets and near zero in television, radio, and Internet markets. When news outlets are deciding whether to make their own versions of a story or buy a version in the market, the large fixed costs involved in creating a story mean that news organizations will often simply buy information on the market rather than make their own version. This pattern has held from the time of printed inserts in nineteenth-century papers, to the use of wire service stories by local newspapers and use of news service footage in local television broadcasts, to the use of wire service stories on Internet sites today. Local outlets can carry national and international stories without developing their own expertise in this coverage.[35] Since news service stories will end up being offered in local markets across the country, the news services design the content to fit across markets. The technologies, such as the telegraph or Internet, that make buying stories easier can also lead to more homogeneous coverage. News services may be less likely to inject partisan coverage, for example, since their products are designed to sell in markets where partisan allegiances may vary greatly.

The large fixed costs of assembling a story mean that within a given news organization managers will face incentives to repeat stories rather than create new ones. A broadcast television station will recycle stories across dinner hour and late night news broadcasts.[36] A

media company will face incentives to own outlets in print, broadcast, and Internet markets, since the creation of stories to be sold in one medium generates information that can be resold through other distribution channels. The development of knowledge among reporters also influences content and style decisions. A print journalist who writes about a given area may be able to resell the information by appearing on television talk shows. The journalist's parent publication may even pay the reporter to make broadcast appearances, since this promotes the brand name of the publication. Print and broadcast news outlets may seek out alliances so that reporters in one media can convey their information in another media. Print reporters may appear regularly on a broadcast partner network, which lowers the costs to the network of developing expertise. The fixed cost of learning also tips the balance in story selection toward continuing coverage of a given event rather than undertaking new investigations. This prolongs the life of stories, since journalists may find it cheaper to write a "reaction" story that follows up on a topic they understand from prior reporting.

The technology of information distribution also influences content through the structure of costs. Economies of scale in newspaper distribution help explain why most cities have only one local daily newspaper. To realize the cost savings associated with scale, newspapers can face incentives to use content to add particular groups of readers. In the late nineteenth century, papers adopted "objective" coverage of politics since this allowed them to attract both Democratic and Republican readers to sell to advertisers. The savings associated with attracting additional readers to spread costs meant that there were strong incentives to leave out partisan material that would alienate a particular set of readers. The logic of information bundling also explains why papers may add some story topics to gain marginal groups of readers.

The costs involved in setting up a cable transmission system in a city point toward a single provider, since from a technical standpoint duplicating two cable systems in an area would be wasteful. The awarding of a local monopoly in cable transmission, however, can create separate setup problems with the pricing of cable content. The integration of ownership of the cable conduit with ownership of cable content, for example, cable channels, also can affect news content. If cable subscription prices are set "too high," then marginal cable viewers may choose not to pay for cable packages or channels that carry news that they would purchase in the absence of cable market power. If vertical integration leads a cable operator to favor channels in which it owns an interest, this means that some news channels may not be offered because the cable system favors its own productions.

At first glance the Internet might seem to offer relief from distribution cost worries. Once a news site is up and running with stories the marginal cost of another web surfer logging onto the site is effectively zero. The spatial model emphasizes that costs in a particular news segment limit the number of providers that can earn profits there. If the Internet drops these fixed costs, then one would think that many more news outlets can survive in a genre such as hard news provision. The limits on human attention and information processing, however, mean that in a world of many Internet sites there will still be advantages to size. Sites may have to engage in significant advertising, often in print or broadcast media, in order to raise

awareness of their existence and brand location. This reintroduces the problem of fixed costs and gives established media outlets advantages in the operation of Internet news markets.

Speed of information transmission also affects content through supply and demand side pressures.[37] Satellite and Internet technologies give news outlets the ability to provide immediate coverage of events. This raises consumers' utility to the extent that they prefer current knowledge to future knowledge, an assumption often made about consumption patterns. The speed of transmission and existence of quickly retrieved electronic data, however, may reduce the time for reasoned analysis by some journalists. In a world where reporters face demand for news now, they may be more likely to engage in herding. Rather than investigate and develop a story, a reporter may look at the efforts of others and use a similar take on a news event. The quick transmission technology also makes it more likely a consumer has heard about popular stories from friends or coworkers. This can create the expectation that a story will be covered by a favored news outlet in a particular way. The cascading of information can lead to demands for quick story coverage. Not all outlets will react in the same way to these pressures, since the spatial model predicts that it will still be profitable for some outlets to develop brand names for high public affairs content combined with extensive analysis.

Revenues and Values

For information products there is always a disconnect between the revenues companies earn and the values society members place on the information. The failure of readers and viewers to incorporate the civic benefits of learning about politics in their decision making makes this disconnect greater for news with high public affairs content. News outlets such as cable television channels, newspapers, and some Internet sites gain part of their revenues through subscription charges. The cost of adding another reader or viewer is near zero for a cable channel and Internet site and relatively low for a newspaper. The news provider charges a price P to recover the fixed costs that went into assembling the stories. This price deters some consumers from buying the product, since their willingness to pay for the stories is less than P. From society's perspective this is inefficient. Once the stories are created, the marginal cost of providing a version of the cable news program for an additional consumer is zero. The viewer is willing to pay a price P^* greater than zero, so the value to society of the viewing is greater than the cost to society ($P^* > 0$). Since P^* is less than P, however, some consumers will not buy the channel and society will forgo the opportunity of viewing where benefits exceed costs.

The news provider needs to charge a nonzero price to cover the fixed costs of story assembly. This problem of pricing the news is an inherent tension built into the pricing of information goods. In the long run nonzero prices for information goods create incentives for companies to enter the field, for reporters to develop expertise, and for news outlets to spend the resources to develop brand names for particular types of coverage. This is the logic behind the granting of patents and copyrights, which are legal protections that create incentives for individuals to develop ideas. Once the information is created, in the short run any price above

marginal cost (which is normally zero for information products) is inefficient since it discourages information consumption by readers and viewers who value the product more than its marginal cost of production. The problem is exacerbated for news with high public affairs content because individuals do not fully factor in the benefits to society of their civic knowledge when they decide how much they are willing to pay for news goods. The failure of news outlets to earn revenues from the value of better voting decisions means that news programs or products that focus on hard news will be underproduced.

Newspapers, television channels, radio stations, and Internet sites derive their other revenues from advertising sales. When news outlets sell "eyeballs" to advertisers the question becomes, What content can attract readers or viewers rather than what value will consumers place on content? This sets up at least two biases when outlets rely on advertising revenues.[38] Programs that appeal to smaller groups of readers or viewers may be less likely to be produced, since other factors being equal a media firm will be interested in selling larger audiences to advertisers. Even if a minority of potential readers or viewers values coverage of a given issue very strongly, this does not translate into higher revenues for a firm since the company gains money by attracting viewer attention rather than from extracting payments based on intensity of preferences. Once people are watching a program or reading a news entry, advertisers care about the chance to divert their attention to a commercial product. The advertisers do not care directly about the value readers or viewers place on the content surrounding the commercial or advertisement. A second bias in advertiser supported media is against expensive programming. If a programmer can attract X viewers with a low-cost program or a high-cost program, the programmer will choose the low-cost program even if the high-cost program is more highly valued by consumers. These two biases could hurt the production of hard news programming, since it may appeal to a relative minority of readers and viewers and may entail higher costs of production than other news genres.

Evaluating the Marketplace of Ideas

The metaphor of news coverage as a marketplace of ideas generates more questions than answers. Why would a marketplace of ideas generate truth? Whose truths matter? What is the impact of ideas on social outcomes? Does ignorance generate efficiency? Does lack of coverage translate into mistaken beliefs? What cues do people use to get by in economic and political marketplaces? Economic models do well in predicting how information is transformed into news in the media marketplace.[39] Notions such as public goods, rational ignorance, fixed costs, and spatial competition help explain which varieties of news products emerge. Economics does less well in assessing the outcomes of news markets, primarily for two reasons. Determining the impact of news coverage on individuals' political decisions is an empirical field still open to much debate.[40] Evaluating the outcomes of government decisions is even more controversial, since economics is only one of many possible ways to measure social welfare.

Consider how economics might be used to determine the value of news coverage that affects a particular government decision between options *A* and *B*. News about the pending decision may affect the information that citizens possess, the amount of political participation by individuals, the number of views expressed in debates, the number of speakers involved in policy discussions, and the quality of views expressed. These factors can affect the probability that option *A* or *B* is chosen, so they have an instrumental value that depends on their relative influence on the final decision. Each factor also has an intrinsic value, since individuals may value diversity of opinion or freedom of expression as goods in and of themselves. If one were able to assess how political information affects political opinions, the next step would be to determine how opinions translate into electoral effects and policy outcomes. Nearly all political decisions involve delegated decision making, so one needs a model of how the information possessed by voters affects the choices made by their agents in the legislative and executive branches.[41]

The consumption of political information by an individual gives rise to at least three possible types of value. The individual can gain satisfaction from the news simply as an information product consumed for the pleasure of knowledge. There are the intrinsic values the person may place on being informed about politics, that arise from a sense of duty and the value that others place on this from the notion that informed citizens are valuable. The third value arises from the impact of this information on government decision making between options *A* and *B*. The theory of rational ignorance stresses that any one individual has a small probability of affecting a government action. If we set this aside, the problem still remains of how to value the contribution of information in making the choice between two government policies. Economics offers the standard of efficiency to judge outcomes, which in some sense translates into the question of which option will lead to a greater social pie to divide. The problem with using this standard to derive a monetary value of *A* versus *B*, however, is that all judgments about efficiency begin with a presumption about what distribution of income one starts with. Since many political questions involve choices about the best distribution of income, they invoke questions that cannot be answered using a standard of efficiency. While there are many standards one could use to supplement efficiency, there is no one best way to aggregate how individuals value social outcomes using a fair decision rule.

This means that economics yields partial, not final, answers in questions about news coverage. Models of media content can point to the direction of likely market failures. The spatial model and other concepts from information economics can predict which types of news coverage are likely to be underproduced. The magnitudes of these failures are more difficult to predict, and placing a dollar value on them is even more problematic. If one is willing to make assumptions about media effects and stipulate particular ends for media policy, however, then economics can provide more help in the design of policies chosen to achieve a given set of outcomes.

Policy Levers

The theory of rational ignorance suggests that news about government will be underprovided and underconsumed relative to a world where people considered the full benefits to society of being informed voters. Economics offers a series of policy tools to deal with situations of positive externalities, that is, situations where people do not fully incorporate the benefits to society of their actions as producers or consumers.[42] Each of the following tools can be applied to the market failures associated with news about politics, with the ultimate goal of increasing the creation and consumption of political information.

Lower the cost of information production and access. When reporters or media outlets are trying to decide on their mix of stories, costs play a role in determining what types of information get developed into news programming. The government influences the costs of many stories about public policy, since the government determines the access to data and personnel involved in the poli-cies. One way to tilt production of news goods more toward hard news coverage is to lower the costs to reporters of researching stories. The Freedom of Information Act provides journalists with a way to gain access to government data. Updated legislation instructs agencies to provide information in electronic form, so that people outside the government can more readily study its actions. Most agencies do not make their data readily accessible online, since data generate scrutiny and the potential for unwanted publicity. Government policies that make data more accessible to the public online will make it easier for reporters to write about policy actions.

Change the property rights of broadcasters/cable operators. Broadcasters currently receive licenses from the Federal Communications Commission for free, in exchange for the promise to broadcast in the "public interest, convenience, and necessity." Expectations about what this promise entails have varied with presidential administrations. FCC Chairman Mark Fowler declared in the 1980s that "the public's interest … defines the public interest"[43] In the 1990s Chairman Reed Hundt led debates over whether broadcasters had responsibilities beyond market dictates in deciding on program content. Proposals for broadcasters to provide free time to political candidates or provide public affairs programming related to local community interests arise from the notion that the zero monetary price for a license carries an implicit price in programming content. Cable operators enjoy a similar grant to use public right of ways in laying cable networks. As part of franchise agreements cable operators often promise to provide access channels for public use and to cover local government events. Once these agreements are in place, however, cable systems have few incentives to make these access channels entertaining or enlightening, since audiences who view these channels are not watching channels that generate revenues through subscriptions or advertising revenues.

Tax and subsidy provisions for information. Starting with early postal regulations that allowed newspapers to be sent for free or at reduced rates, the government has often used tax

revenues to subsidize information markets. Government grants to the private sector for environmental, medical, and social science research can be seen as subsidies meant to correct market failures arising from rational ignorance. Government subsidizing of the Internet's forerunner has paid large social dividends, especially when one considers how the Internet increases the potential for citizen access to political data. Funding by the government for public broadcasting also helps subsidize the provision of hard news.

Public provision of information. The government devotes significant resources to the creation of statistics that track social outcomes, information that helps facilitate coverage of particular types of government action. The time devoted by agency officials to speaking with the press, energy expanded in creating government websites, and money spent on publications by the Government Printing Office all involve the use of government funds for the creation or distribution of political information. Election concerns in the legislative and executive branches will generate incentives for politicians to lower the costs to reporters of covering particular issues.

Regulation of ownership structures. Current communications policy in broadcast and newspaper markets places limits on the nature of media company ownership. Broadcast networks cannot be wholly owned by foreign corporations, the same company cannot own a newspaper and broadcast station in a local market, and a firm cannot own stations covering more than 35% of the national television audience. These measures are meant to encourage decentralized, local control of media outlets, with the hope in part that local owners may have goals other than the maximization of profits. Such policies are meant to have an impact on the content of news coverage. The impacts are designed to be indirect in part because of fear that more direct attempts to regulate content would violate the First Amendment's stricture that Congress shall make no law abridging the freedom of the press.

Antitrust enforcement. Traditional antitrust enforcement focuses on markets where consumers are damaged by business actions that raise price above the marginal cost of the provision of a good. This is a hallmark of the functioning of information markets, however, since the elevation of price above marginal cost is what allows a firm to earn revenues to cover the substantial fixed costs of producing the first copy of a news product. Most current proposals to use antitrust actions against media firms focus on the size of media firms and the consolidation of ownership of media properties. An assumption is often made that a reduction in the number of owners in a media market leads to a reduction in the variety of opinions offered. The theories recounted here demonstrate that this is an empirical question. The dispersion of consumer demands for different types of news may still generate a diversity of news products. Under some conditions more consolidated ownership can generate more program diversity, since a consolidated owner is less likely to duplicate a program that already serves a particular audience and therefore more likely to offer a niche program.

Copyright. The availability of information on the Internet raises new questions about who

owns data about current events. Courts recognize that some proprietary interest in the creation of data needs to be recognized to give reporters incentives to expend resources to develop information. Once the data have been created, however, the tension remains that allowing someone to charge more than zero for the information will exclude some consumers who value the information more than its marginal cost of distribution. The degree that the government favors creation or copying in Internet disputes will affect incentives for outlets to develop extensive data or distribute information.

Stimulation of demand for information through education/advertising. Though acquisition of political information rarely makes sense as a personal investment, there are citizens who enjoy the consumption of this information. They may feel a duty to be informed, or follow politics for the sheer joy of consuming knowledge, or be fascinated by the human drama elements of elections. Some of these demands are correlated with education. To the extent that classroom instruction stimulates interest in politics, attempts to improve schooling may translate into increased demand for news about government. Just as private interest advertising may increase demand for particular types of goods, government advertising about public information sources will also facilitate the consumption and dispersion of political data.

Creation of norms to encourage the production of political information. Professions often emerge as solutions to market failure problems, so that individuals are led to consider goals aside from simple profit maximization in their decision making. Efforts that discuss journalism as a profession may help encourage reporters and owners to consider the broader public benefits to their work. While the returns for soft news may be attractive for some media outlets, the spatial model predicts that some reporters and firms will try to cover public affairs from a hard news perspective. Psychic rewards that focus on personal integrity and duty may help compensate reporters that try to provide more political information than might be demanded through the profit motive.

Nonprofit provision of political information. Nonprofits face a dilemma in the provision of information, since their nonpartisan status in the tax code often prevents them from direct participation in electoral politics. Nonprofits can, however, play a role in the development and distribution of the information about government actions. Surveys among the general public, studies of the impact of policies, and support for experiments in different policy areas are all ways that nonprofits can create and spread data about politics. Nonprofit support for broadcast and print outlets can also be a way to subsidize the discussion of public affairs.

Conclusions

Individual ignorance about politics may be rational, but is it efficient? That is a question that is rarely raised in discussion of media policies. From an individual's standpoint, investing the

time and effort to cast an informed vote rarely makes sense because of the small probability that a single vote will change a social outcome. Despite this logic, some voters do follow politics and many voters do cast ballots. Imagine a world where information were free, voting was costless, and people cast ballots knowing and understanding their interests and the positions of politicians. How would electoral outcomes and government decisions differ from those made in today's world of rational ignorance? If the social decisions reached would be identical, then today's ignorance represents a bargain. Elections are determined and policies decided upon without each citizen becoming fully informed about the details of policies. Freeing the voter from developing personal positions on foreign and domestic policies is one of the great savings involved in a representative democracy, where voters economize on information gathering by delegating decisions to others. Formulating media policy in a world of rational ignorance and delegated decision making comes down to the question of how many informed voters it takes to run a democracy. The rhetorical answer is based on the ideal of every voter gathering information and going to the polls. This rhetorical answer may even be necessary to sustain the ideology that prompts some voters to learn about politics and cast their votes. From the perspective of social costs and benefits, however, the question remains—How much information is "enough" for a democratic society?

Delegated decision making and rational ignorance are not limited to the operation of the political marketplace. In the economic marketplace, shareholders delegate the decision to maximize profits to managers, who in turn delegate choices to workers, who produce goods that are purchased by consumers. Consumers may not fully investigate the product dimensions of each good they buy. Instead they rely on brand reputations and the purchases of others. In the market some consumers will take the time to learn about prices and qualities, and their efforts can lead firms to make decisions that benefit consumers who have not taken the time to read up or shop around. The search for information in politics is similar, though individual voters face even smaller incentives to learn about politicians than they do about products. If one were to analyze the impact of a particular media policy on political decisions, the process would involve investigating the current costs and benefits of the creation and spread of political information and the impact on public policy decisions.

Would the First Amendment pass a cost-benefit test? Assessing the impact of the First Amendment on political decisions would involve quantifying a number of reactions to media content. How satisfied are consumers with the media products they consume? In many markets the price of a good is used to proxy the value that consumers derive from its consumption. This is difficult for media products for several reasons. The monetary price of the media product is often zero, since broadcast programs and Internet sites are consumed for free. Advertising revenues provide support for media content, which means that prices do not capture the value to individuals of their consumption. For some products with subscription prices economists could glean some information about the value that people derive from their consumption. Yet the broader value to society of informed political decisions would again not be reflected in these values of personal enjoyment from consumption of political information.

Economists use surveys to get at individuals' willingness to pay for goods not actively

traded on markets, goods such as the preservation of the Grand Canyon or the protection of the spotted owl. Individuals are asked questions about placing a dollar value on protecting or shifting priorities. Survey instruments could help measure the willingness of voters to pay for policies that generate more informed decisions overall. This could in part measure the ex post facto regret that voters might feel if they went into the ballot booth rationally ignorant, cast their votes, and then after the fact regretted the policy decisions made by their elected officials. Comparing the states of world generated by media policies could also involve placing a value on the difference between social outcomes that arise with different levels of political information. This would explicitly involve using efficiency, a measure of the size of the social pie, to determine the value of political outcomes.

Since political information is costly to produce, decisions to create or distribute it will inevitably involve personal incentives, including money, fame, ideology, and reelection. The theories in this chapter demonstrate how the five Ws of the economic marketplace currently determine what information is transformed into news. Using economics to evaluate the outcomes of electoral and government decisions is more problematic, because of the difficulties of predicting media effects and of judging all government decisions with the single standard of efficiency. Economics does offer suggestions to reach particular goals of media policies, once they are selected. If one wished to increase the consumption and distribution of hard news, for example, then lowering the costs of accessing government information, increasing the amounts spent on generation of outcome statistics by the government, and encouraging the generation of data by nonprofit foundations are all possible policy recommendations. These measures would be consistent with the view that the best media policies lie in encouraging private actors to pursue public ends. They would also be consistent with the view that while the media market may appear to offer what people want rather than what they need, in a world of delegated decision making this may turn out to be all that people need to monitor and influence government. Reaching these conclusions involves judgment decisions about how well economics predicts the generation and transmission of news, the focus of the chapters that follow.