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Media System, Public Knowledge and Democracy

A Comparative Study

■ *James Curran, Shanto Iyengar, Anker Brink Lund and Inka Salovaara-Moring*

ABSTRACT

■ This article addresses the implications of the movement towards entertainment-centred, market-driven media by comparing what is reported and what the public knows in four countries with different media systems. The different systems are public service (Denmark and Finland), a 'dual' model (UK) and the market model (US). The comparison shows that public service television devotes more attention to public affairs and international news, and fosters greater knowledge in these areas, than the market model. Public service television also gives greater prominence to news, encourages higher levels of news consumption and contributes to a smaller within-nation knowledge gap between the advantaged and disadvantaged. But wider processes in society take precedence over the organization of the media in determining how much people know about public life. ■

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Introduction

In most parts of the world, the news media are becoming more market oriented and entertainment centred. This is the consequence of three trends that have gathered pace since the 1980s: the multiplication of privately owned television channels, the weakening of programme requirements on commercial broadcasters ('deregulation') and a contraction in the audience size and influence of public broadcasters.

Our interest lies in addressing the consequences of the movement towards market-based media for informed citizenship. The democratic process assumes that individual citizens have the capacity to hold elected officials accountable. In practice, political accountability requires a variety of institutional arrangements, including free and frequent elections, the presence of strong political parties and, of particular importance to this analysis, a media system that delivers a sufficient supply of meaningful public affairs information to catch the eye of relatively inattentive citizens. Thus, we are interested in tracing the connections between the architecture of media systems, the delivery of news and citizens' awareness of public affairs. In particular, we test the hypothesis that market-based systems, by delivering more soft than hard news, impede the exercise of informed citizenship.

Media systems in cross-national perspective

There is considerable cross-national variation in the movement towards the American model. We take advantage of this variation by focusing on four economically advanced liberal democracies that represent three distinct media systems: an unreconstructed public service model in which the programming principles of public service still largely dominate (exemplified by Finland and Denmark); a dual system that combines increasingly deregulated commercial television with strong public service broadcasting organizations (Britain); and the exemplar market model of the US. This sample enables us to investigate whether variations in media organization affect the quality of citizenship by giving rise to different kinds of reporting and patterns of public knowledge.¹

The American model is based on market forces with minimal interference by the state. America's media are overwhelmingly in private hands: its public service television (PBS) is underresourced and accounts for less than 2 percent of audience share (Iyengar and McGrady, 2007). Regulation

of commercial broadcasting by the Federal Communications Commission (FCC) has become increasingly 'light touch', meaning that American media are essentially entrepreneurial actors striving to satisfy consumer demand.

Yet, running counter to the increasing importance of market forces, American journalism continues to reflect a 'social responsibility' tradition. News coverage is expected to inform the public by providing objective reporting on current issues. In recent years, however, the rise of satellite and cable television and web-based journalism has weakened social responsibility norms. Increased competition has resulted in smaller market shares for traditional news organizations; the inevitable decline in revenue has led to significant budget cuts. One consequence has been the closure of a large number of foreign news bureaus (Shanor, 2003) and a sharp reduction in foreign news coverage during the post-Cold War era (Schudson and Tiftt, 2005). News organizations have increasingly turned to soft journalism, exemplified by the rise of local television news programmes, centred on crime, calamities and accidents (Bennett, 2003).

In sum, the American market model is more nuanced than it appears to be at first glance. Market pressures coexist with a commitment to social responsibility journalism. However, intensified competition during the last 20 years has compelled news organizations to be more responsive to audience demand in a society that has a long history of disinterest in foreign affairs (Dimock and Popkin, 1997; Kull et al., 2004) and in which a large section of the population is disconnected from public life (Dionne, 1991).

In stark contrast to the US system, the traditional public service model – exemplified by Finland and Denmark – deliberately seeks to influence audience behaviour through a framework of public law and subsidy (Lund, 2007). The core assumption is that citizens must be adequately exposed to public affairs programming if they are to cast informed votes, hold government to account and be properly empowered. This argument is the basis for the generous subsidies provided to public broadcasters, which helps to ensure that they secure large audiences. In Finland, the two main public television channels had a 44 percent share of viewing time in 2005 (Sauri, 2006): in Denmark, their equivalents had an even higher share of 64 percent in 2006 (TNS/Gallup, 2007). The public interest argument is also invoked to justify the requirement that major commercial channels offer programming that informs the electorate. This requirement is enforced by independent regulatory agencies. The public service model thus embraces *both* the public and commercial broadcast sectors.

Britain represents a media system somewhere in-between the pure market (US) and public service (Denmark and Finland) models. On the one hand, Britain's flagship broadcasting organization, the BBC, is the largest,

best resourced public broadcaster in the world, and retains a large audience. The BBC's two principal channels, along with publicly owned Channel 4, accounted for 43 percent of viewing time in Britain in 2006 (BARB, 2007). On the other hand, the principal satellite broadcaster, BSkyB, was allowed to develop in a largely unregulated form, and the principal terrestrial commercial channel, ITV, was sold in a public auction during the 1990s, and its public obligations – though still significant – were lightened. This move towards the deregulation of commercial television had major consequences, some of which are only now becoming apparent. Between 1988 and 1998, the foreign coverage of ITV's current affairs programmes was cut in half (Barnett and Seymour, 1999). By 2005, its international factual programming had dropped below that of any other terrestrial channel (Seymour and Barnett, 2006: 6, Table 2). This had a knock-on effect on other broadcasters, most notably Channel 4, whose foreign coverage in 2005 was almost a third less than in 2000–1 (Seymour and Barnett, 2006: 6, Table 2), but also on the BBC where there was a softening of news values. Indeed, on both BBC and ITV news, crime reporting increased at the expense of political coverage (Winston, 2002).

By contrast with broadcasting, there is a greater affinity between the newspapers of the four countries since these are unregulated and overwhelmingly commercial enterprises. In the US, newspaper circulation has been declining steadily for several years contributing to a significant reduction in the number of daily papers; in fact, there are hardly any American cities with more than one daily paper.

Denmark has three directly competing national dailies, while in Finland the backbone of the press system consists of regional papers, though it has also competitive national papers. The rise of the Metro phenomenon of free distribution daily papers has fuelled additional competition in both countries.

The British press is somewhat distinctive in that its national newspapers greatly outsell the local press. This gives rise to intense competition between 10 directly competing national dailies. Five of these serve relatively small, affluent markets, rely heavily on advertising and are oriented towards public affairs, while the other five are directed towards a mass market and focus on entertainment. The latter group, which accounts for over three-quarters of national newspaper circulation, has become increasingly frenetic in the pursuit of readers in response to a steady but now accelerating decline of newspaper sales (Curran and Seaton, 2003).

Overall, the differences between the media systems of the four countries are now less pronounced than they once were. But there remains, nonetheless, a significant contrast between the American television model,

which is geared primarily towards satisfying consumer demand, and the public service television systems in Finland, Denmark and, to a lesser degree, Britain, which give greater priority to satisfying informed citizenship.

Research design

In order to investigate the hypothesis that more market-oriented media systems foster less 'serious' kinds of journalism that limits citizens' knowledge of public affairs, we combined a quantitative content analysis of broadcast and print sources in each country with a survey measuring public awareness of various events, issues and individuals in the news.

Content analysis

Our media sources were the two principal television channels in each country (ABC and NBC News in the US, BBC1 and ITV in the UK, DR 1 and TV2 in Denmark and YLE1 and MTV3 in Finland) and a representative group of daily newspapers. The US press sample consisted of an 'elite' daily (*The New York Times*), a more popular-oriented national daily (*USA Today*), as well as a regional newspaper heavily dependent upon the wire services (*Akron Beacon Journal*). The Danish press was represented by the national broadsheet *Jyllands-Posten*, the national tabloid *Ekstra Bladet*, the national free sheet *Nybedsavisen* and the regional daily *JyskeVestkysten*. The Finnish press sample was constituted by the national broadsheet *Helsingin Sanomat*, a big regional daily *Aamulehti*, the national tabloid *Ilta-Sanomat* and a national free sheet, *Metro*. Finally, the British press was represented by the circulation leaders of the upscale, mid-scale and downscale sectors of the national daily press (respectively, *The Daily Telegraph*, *Daily Mail* and *The Sun*)² and one local daily, *Manchester Metro*.

Each news source was monitored for a period of four (non-sequential) weeks in February–April 2007. The main evening news programme on each television channel was analysed. In the case of newspapers, scrutiny was limited to the main news sections of American newspapers, which we compared to the main or general sections of their European counterparts.

The news sources were classified by trained student or research assistant coders in each country. The classification scheme consisted of a common set of content categories developed in advance by the researchers. Hard news was defined as reports about politics, public administration, the economy, science, technology and related topics, while soft news consisted of reports about celebrities, human interest, sport and other entertainment-centred stories. However, in the particular case of crime,

predetermining news coverage as either soft or hard proved to be misleading, prompting us to distinguish between different types of news stories. If a crime story was reported in a way that contextualized and linked the issue to the public good – for example, if the report referred to penal policies or to the general causes or consequences of crime – it was judged to be a hard news story assimilated to public affairs. If, however, the main focus of the report was the crime itself, with details concerning the perpetrators and victims, but with no reference to the larger context or implications for public policies, the news item was judged to be soft.

In addition to coding news reports as hard or soft, we classified news as reflecting either domestic or overseas events. Here we used a simple enumeration of nation-states. Each news report was classified according to the country or countries referenced in the report. We also coded the news for the presence of international or regional organizations (e.g. the United Nations or European Union).³

Survey design

We designed a survey instrument (consisting of 28 multiple-choice questions) to reflect citizens' awareness of both hard and soft news as well as their familiarity with domestic vs international subject matter. Fourteen questions tapping awareness of international events (both hard and soft) were common to all four countries. This common set included an equal number of relatively 'easy' (international news subjects that received extensive reporting within each country) and 'difficult' (those that received relatively infrequent coverage) questions. For example, questions asking American respondents to identify 'Taliban' and the incoming president of France (Sarkozy) were deemed easy, while questions asking respondents to identify the location of the Tamil Tigers separatist movement and the former ruler of Serbia were considered difficult. In the arena of soft news, easy questions provided highly visible targets such as the popular video-sharing website YouTube and the French footballer Zinedine Zidane; more difficult questions focused on the site of the 2008 summer Olympics and the Russian tennis star Maria Sharapova.

In the case of domestic news, hard news questions included recognition of public officials and current political controversies. Soft news questions focused primarily on celebrities, either entertainers or professional athletes. We supplemented the domestic questions with a set of country-specific questions related to the particular geopolitical zone in which each country is situated. Americans, for example, were asked to identify Hugo Chavez (president of Venezuela), the British and Finnish respondents were

asked to identify Angela Merkel (chancellor of Germany), while Danes were asked about the incoming British premier, Gordon Brown. Once again, we took care to vary the difficulty level of the questions.

The survey was administered online, shortly after the period of media monitoring.⁴ As Internet access has diffused, web-based surveys have become increasingly cost-effective competitors to conventional telephone surveys. Initially plagued by serious concerns over sampling bias (arising from the digital divide), online survey methodology has developed to the point where it is now possible to reach representative samples. Our survey design minimizes sampling bias through the use of sample matching, a methodology that features dual samples – one that is strictly probabilistic and based on an offline population, and a second that is non-probabilistic and based on a large panel of online respondents. The key is that each of the online respondents was selected to provide a mirror image of the corresponding respondent selected by conventional random digit dialling (RDD) methods. In essence, sample matching delivers a sample that is equivalent to a conventional probability sample on the demographic attributes that have been matched (for a more technical discussion of sample matching, see Rivers, 2005).

From each online panel, a sample of 1000 was surveyed. In the US, the sample was limited to registered voters; in Denmark, Finland and the UK, all citizens over the age of 18. In the US, UK and Finland, online sample respondents were matched to national samples on education, gender and age (and, additionally, in the US, in relation to race). In Denmark, the sample was drawn from a representative panel, on the basis of controlled recruitment procedures ensuring a close correlation to the demographics of the total society. The results were later weighted on age and gender.⁵

The format and appearance of the online surveys were identical in each country. Question order and the multiple-choice options (each question had five possible answers) were randomized, and in order to minimize the possibility of respondents attempting to ‘cheat’ by searching the web, each question remained on the screen for a maximum of 30 seconds before being replaced by the next question. In addition, the survey link had the effect of disabling the ‘back’ button on the respondent’s browser.

Differences in news content

Our content data show that the market-driven television system of the US is overwhelmingly preoccupied with domestic news. American network news allocates only 20 percent of programming time to reporting foreign news (47 percent of which, incidentally, is about Iraq). Whole areas of the

world receive very little coverage and, indeed for much of the time, are virtually blacked out in American network news. By contrast, the European public service television channels represented in our study devote significantly more attention to overseas events. As a proportion of news programming time, foreign coverage on the main news channels in Britain and Finland is nearly 50 percent more than that in the US (see Table 1). However, part of British television's joint lead in this area is due to its greater coverage of international soft news. If international soft news is excluded, the rank ordering of 'internationalist' television coverage changes to Finland (27 percent) at the top, followed in descending order by Denmark (24 percent), Britain (23 percent) and the US (15 percent).

The view of the world offered by British and American television is significantly different from that of the two Scandinavian countries. Both Finnish and Danish television distribute their coverage of foreign news very evenly between three sets of nations: those from their continent (Europe), their wider geopolitical zone (in the case of Denmark, for example, this is US, Iraq and Afghanistan) and the rest of the world. By contrast, both American and British television channels devote a much smaller proportion of their foreign news time (respectively 5 percent and 8 percent) to other countries in their continent; and in Britain's case, much less attention to the rest of the world. Their main focus (accounting for between over half and over two-thirds of their foreign news coverage) is overwhelmingly on their geopolitical attachments, in which Iraq and Afghanistan loom large.

Ratings-conscious American networks also allocate significant time to soft news, both foreign and domestic (37 percent), as does British television news (40 percent). This compares with much lower proportions in Finland and Denmark. Indeed, the Anglo-American daily quota of soft news is more than double that in Finland. The difference is partly due to the fact that both American and British television news allocates a significant amount of time (14 percent and 11 percent respectively) to entertainment, celebrities and gossip, unlike Danish and Finnish news (less than 5 percent).

In the case of newspapers, the preoccupation with soft news is no longer an American prerogative. In fact, our sample of American newspapers was *more* oriented towards hard news than their counterparts in the European countries. This finding may be attributable, in part, to the inclusion of *The New York Times*, arguably the most 'elite' of American dailies, and to the fact that the US press lacks a tabloid tradition.

Among the European countries studied, the Finnish press proved more hard news and international news oriented than the press in Denmark and Britain. As expected, the British press, with its significant tabloid tradition, is preoccupied with domestic stories (83 percent), soft

Table 1 Distribution of content in television and newspapers in four countries^a

	<i>US</i>	<i>UK</i>	<i>FIN</i>	<i>DK</i>
<i>Television</i>				
Hard/soft news				
Hard news	63	60	83	71
Soft news	37	40	17	29
Domestic/international news				
Domestic	80	71	71	73
International	20	29	29	27
<i>Newspapers</i>				
Hard/soft news				
Hard news	77	40	54	44.5
Soft news	23	60	46	55.5
Domestic/international news				
Domestic	66	83	62	71
International	34	17	38	29

^aTotal sample: 19, 641 newspaper and 2,751 television news stories.

news (60 percent), *and* devotes more space to sport (25 percent) than even the Danish press (13 percent).

In short, Finnish and Danish public service television is more hard news oriented and outward looking than American commercial television, with British television occupying an orbit closer to the American than Scandinavian models. This pattern is modified when it comes to newspapers, a less important source of information about public affairs than television.⁶ The British and Danish press prioritize soft and domestic news more than the American and Finnish press.

Differences in public knowledge

The survey results revealed Americans to be especially uninformed about international public affairs. For example, 67 percent of American respondents were unable to identify Nicolas Sarkozy as the president of France, even though they were tipped the correct answer in one of their five responses. Americans did much worse than Europeans in response to seven of the eight common international hard news questions (the sole exception being a question about the identity of the Iraqi prime minister). The contrast between

Table 2 Percentage of correct answers to international hard news questions across nations

<i>International/hard news items</i>	<i>US</i>	<i>UK</i>	<i>FIN</i>	<i>DEN</i>
Kyoto	37	60	84	81
Taliban	58	75	76	68
Darfur	46	57	41	68
Srilanka	24	61	46	42
Maliki	30	21	13	20
Annan	49	82	95	91
Sarkozy	33	58	73	79
Milosevic	33	58	72	78

Americans and others was especially pronounced in relation to some topics: for example, 62 percent of Americans were unable to identify the Kyoto Accords as a treaty on climate change, compared with a mere 20 percent in Finland and Denmark, and 39 percent in Britain. Overall, the Scandinavians emerged as the best informed, averaging 62–67 percent correct responses, the British were relatively close behind with 59 percent, and the Americans lagging in the rear with 40 percent (see Table 2).

American respondents also underperformed in relation to domestic-related hard news stories. Overall, Denmark and Finland scored highest in the area of domestic news knowledge with an average of 78 percent correct answers, followed again by Britain with 67 percent and the US with 57 percent (see Table 3).

Turning to awareness of international soft news, Americans were again the least informed. Thus, only 50 percent of Americans knew that Beijing was the site of the next Olympic Games, compared with 68–77 percent in the three other countries. Overall, the British were best able to give correct answers in this area (79 percent), followed by the Scandinavians (69 percent) and the Americans (53 percent).

The one area where Americans held their own was domestic soft news. Thus over 90 percent of Americans were able to identify the celebrities Mel Gibson, Donald Trump and Britney Spears. However, citizens of the other countries proved just as attentive to soft news; hence, the average American score for domestic soft news was no different to that in Britain and Denmark, and significantly below that of Finland.

In general, these data suggest a connection between patterns of news coverage and levels of public knowledge. American television reports

Table 3 Average percentage of correct answers to hard and soft news questions in domestic and international domains^a

	<i>US</i>	<i>UK</i>	<i>FIN</i>	<i>DK</i>	<i>Total</i>
International hard news	40	59	62	67	58
Domestic hard news	57	67	78	78	70
International soft news	54	79	70	68	68
Domestic soft news	80	82	91	85	84

^aAn ANOVA 4 (nation: Finland, UK, US, Denmark) \times 2 (type of news: hard vs soft) \times 2 (domain: domestic vs international) with repeated measures on the last two factors confirms the systematic cross-national differences in the proportion of national, international, hard and soft news correctly identified by our respondents, as shown by the reliable three-way interaction nation \times type of news \times domain, $F(3,4444) = 45.27$, $p < .001$, partial $\eta^2 = .03$.

much less international news than Finnish, Danish and British television; and Americans know very much less about foreign affairs than respondents in these three countries. American television network newscasts also report much less hard news than Finnish and Danish television: and, again, the gap between what Americans and Finns and Danes know in this area is very large. British television allocates most time to international soft news, and British respondents' knowledge in this area is unsurpassed. Americans hold their own only in relation to domestic soft news, an area where American television is strong.

There are perhaps two surprises in these results. The first is that Finns and Danes have extensive knowledge of soft as well as hard news, something that is perhaps assisted by their popular press. The second is that American respondents seemed to know less *in general* about the world around them than Europeans (for which there is, as we see later, an explanation).

Media visibility and public knowledge

To further pursue the connection between news coverage and public knowledge, we next examined whether greater media visibility of the topics and people we asked about, in a sample of newspapers in the four countries, one month and six months prior to our survey, was associated with higher levels of knowledge, and conversely whether reduced media prominence of topics/persons was associated with lower levels of knowledge. There were two limitations to this exercise. First, the availability of longitudinal data on news coverage limited the analysis to the print media, and did not include the more important medium of television. Second, there is an element of ambiguity about our understanding of visibility: a person

Table 4 Regression model: visibility as a predictor of knowledge across countries

		R^2	$F(1, 26)$	<i>Sig.</i>
<i>Coverage over 6 months^a</i>				
US	$\beta = .48$	.23	7.62	$p < .05$
UK	$\beta = .42$	.17	5.07	$p < .05$
Finland	$\beta = .24$	.06	1.60	$p = .22$
Denmark	$\beta = .39$	.15	4.56	$p < .05$
		R^2	$F(1, 26)^b$	<i>Sig.</i>
<i>Coverage over 1 month</i>				
US	$\beta = .24$	.06	1.64	$p = .21$
UK	$\beta = .35$	.12	3.39	$p = .08$
Finland	$\beta = .28$	.08	2.14	$p = .16$
Denmark	$\beta = .51$	.51	9.17	$p < .01$

^aThe sample of newspapers in US was one tabloid (*NY Daily News*), one popular daily (*USA Today*) and three prestige dailies (*The New York Times*, *Los Angeles Times*, *Washington Post*); in the UK, two popular dailies (*Daily Mail* and *The Sun*) and two prestige dailies (*The Guardian* and *The Daily Telegraph*); in Finland, the biggest national daily (*Helsingin Sanomat*), biggest regional daily (*Aamulehti*) and the biggest tabloid (*Ilta-Sanomat*); and in Denmark, a national broadsheet (*Jyllands-Posten*), a national tabloid (*Ekstra Bladet*) and a regional daily (*JyskeVestkysten*). The sampled periods for the six-month and one-month periods were 7 January–7 June 2007 and 7 May–7 June 2007 respectively. The search criteria required the item to appear anywhere in the text. Names were searched using both *first* and family name; places were searched in association with the specific event (e.g. Sri Lanka + Tamil Tigers; Sudan + Darfur).

^bIn UK two items – McCann and Mourinho – were excluded from this analysis as they resulted in outliers (> 3 SD).

who receives only limited press coverage in the six months leading up to the survey may yet have obtained extensive coverage before then, generating accumulated knowledge that is carried forward to the survey. Yet, despite these potentially distorting influences, the analysis suggests a clear statistical relationship between extended press visibility and public knowledge: visibility scores in the long period (in the six months preceding the survey) were good predictors of the percentage of correct answers given by our participants in the US, UK and Denmark, though not in Finland (Table 4). Visibility in the short-term (during the preceding month) was a strong predictor in Denmark, a weak predictor in the UK, but could not predict knowledge in Finland and the US.

This analysis thus corroborates our assertion that what the media report – or fail to report – affects what is known. The sustained lack of attention given to international news on American television and the lack of knowledge of international public affairs in America⁷ is no coincidence.

Cross-national differences in media exposure

To this point, we have examined the relationship between the supply of news and the level of public knowledge. But knowledge is obviously also contingent on individuals' motivation to know – their interest in current events and attentiveness to the news media.⁸ We asked survey respondents to indicate the frequency with which they used various media sources. The results showed substantial cross-national differences: Americans consume relatively little news from conventional media by comparison with populations elsewhere. Just 39 percent of American respondents report that they look at national television news more than four days a week. This contrasts with 78 percent in Denmark, 76 percent in Finland and 73 percent in Britain.

One reason for this contrast is that significant numbers of citizens in the US – a vast country with different time zones and a politically devolved form of government – are oriented towards local rather than national news. A higher proportion in the US (51 percent) say that they regularly watch local television news than in Denmark (43 percent) and Finland (29 percent), though not in Britain (56 percent). But low consumption of national television news in the US is also symptomatic of the traditionally light American news diet. Only 37 percent of American respondents say that they read newspapers more than four days a week, against 71 percent in Finland, 58 percent in Denmark and 44 percent in the UK. Just 39 percent of Americans listen to radio news more than four days a week, compared to significantly higher levels elsewhere (51 percent Finland; 56 percent UK; and 65 percent in Denmark).

In short, one reason why Americans know less about the world around them than Finns, Danes and the British is that Americans consume relatively little news in comparison with populations elsewhere. It is possible that Americans make up for their deficit in 'old' media consumption with greater use of the Internet. But the available evidence casts doubt on this possibility. Research by the Pew Center, for instance, demonstrates that total consumption of news across all outlets in the US actually declined between 1994 and 2004 (Pew, 2005: 44). Moreover, the greatest decline in news consumption occurred among young adults, the most Internet-oriented cohort of the electorate (Pew, 2007; for similar results see Patterson, 2007).

Within-nation knowledge gaps

Another factor contributing significantly to American underperformance is that the knowledge gap between social groups is greater in America than in the three European countries we studied. Disadvantaged groups in

the US perform especially poorly in our knowledge tests, lowering the national average. But disadvantaged groups in Finland, Denmark and Britain know just as much as their more privileged counterparts, thus raising the national averages in these countries.

The contrast is especially notable in relation to education. We divided the populations of the four countries into three comparable educational groups – those with limited education, moderate education (including significant post-school qualifications or some university education) and the highly educated (graduates and postgraduates). Those with limited education in the US score very much lower in relation to hard news questions than those with higher education. The difference between these groups is a massive 40 percentage points. By contrast, the difference between the same two groups is 14 percentage points in Britain, 13 percentage points in Finland and in effect zero in Denmark (see Table 5).

A similar pattern recurs in relation to income (though income data were not collected in Denmark). In the US, an average of only 29 percent of the low-income group could give correct answers to hard news questions, compared with 61 percent of the high-income group – a difference of 32 percentage points. The comparable difference is less than half this in Britain, and is actually inverted in Finland.

There is also a significant hard news knowledge gap between the ethnic majority and ethnic minorities in the US of 15 percentage points. But in Britain, there is none. Data were not analysed for ethnic minorities in Denmark and Finland, where they are a very small proportion of the population.

These findings fit a general pattern of higher variance in the distribution of knowledge in the US compared with elsewhere. The difference, for example, in the hard news scores of men and women, and of young and old, is more pronounced in the US than in the three European countries. Thus, 24 percent more correct answers to hard news questions were given by men compared with women in the US, compared with a 16 percent difference in the UK and 12 percent in Finland. In Denmark, the gender gap was reversed, with 9 percent more correct answers being given by women than by men. Thus, there appears to be a significantly higher minimum information threshold in the three European countries compared with the US.

Media systems and social inclusion

National television in European countries is more successful in reaching disadvantaged groups (defined here in terms of income, education and ethnicity), partly as a consequence of its public service tradition. Public

Table 5 Distribution of hard news knowledge between social groups^a

	<i>Education</i>	<i>US</i>	<i>UK</i>	<i>FIN</i>	<i>DEN</i>
Hard news	Low	31.4	57.4	65.0	71.1
	Medium	52.0	59.7	67.6	73.0
	High	71.0	70.9	78.4	70.3
	<i>Income</i>	<i>US</i>	<i>UK</i>	<i>FIN</i>	
Hard news	Low	28.9	54.5	79.5	
	Medium	45.0	66.0	76.4	
	High	61.5	67.6	67.0	
	<i>Ethnicity</i>	<i>US</i>	<i>UK</i>		
Hard news	Minority	36.1	63.0		
	Majority	51.5	62.9		

^aAverage percentage of knowledge in hard news across different levels of income, education and social status. As for education, we built a three-level index, with the first level indicating low education (up to high school qualification), a second level indicating medium level of education (university diplomas, some university education) and a third level representing higher education (graduates and postgraduates). We grouped the income answers in three macro categories: low (US: income below US\$24,999; UK: income below £19,999; FIN: income below €35,000); medium (US: US\$25,000–69,999; UK: £20,000–29,999; FIN €35,001–65,000) and high (incomes higher than the medium bracket in the three countries). Finally, majority group members are white British/EU/US citizens, whereas minority group members are citizens belonging to other ethnic backgrounds.

broadcasters, financed by a licence fee or public grant, are under enormous pressure to connect to all sections of society in order to justify their continued public funding. Any evidence that they are losing their appeal to a section of the audience usually results in urgent internal inquests, and demands for remedial action.⁹ By contrast, commercial media tend to be exposed to pressure to prioritize high-spending audiences in order to maximize advertising revenue. This can result in low-income groups receiving less attention and, even in exceptional cases, being deliberately shunned (Baker, 1994; Curran and Seaton, 2003; Turow, 1997).

The central objectives of public service and commercial media are also different. The primary goal of commercial media is to make money, while that of public service organizations is to 'serve society' in ways that are defined in law and regulation. One of their principal public obligations is to inform the public, which influences when news programmes are transmitted.

The three American television networks transmit their main news programmes in the early and late evening. They reserve the hours between 7 p.m. and 11 p.m. for entertainment in order to maximize ratings and

Table 6 Exposure to national television news^a

		<i>US</i>	<i>UK</i>	<i>FIN</i>	<i>DEN</i>
Television	Low education	34	75	73	72
	Low income	30	69	82	–
	Ethnic minorities	35	73	–	–
National Average		40	73	77	75.5

^aProportion of low education (up to high school diploma), low income (US: income below US\$24,999; UK: income below £19,999, FIN: income below €35,000) and minority group (non-white) participants who watch national television news more than four days a week.

revenue. By contrast, the top three television channels in Finland transmit their main news programmes at different times throughout the evening: at 6 p.m., 7 p.m., 8.30 p.m. and 10 p.m. (and, on one of these principal channels, a daily current affairs programme at 9.30 p.m.). In Denmark, the two leading television channels transmit their main news programmes at 6 p.m., 7 p.m. and 10 p.m., spliced by a current affairs programme on one of these channels at 9.30 p.m. In both countries, the top television channels (including Finland's commercial MTV3 channel) offer a steady drip-feed of public information during primetime in contrast to the intensive entertainment diet of America's market-driven television. British television wavers between these two models. In 1999, the principal commercial television channel (ITV) adopted the American scheduling strategy of an early and late evening news slot, something made possible by its increased deregulation. This exerted ratings pressure on the BBC1, which then moved its 9 p.m. news programme to 10 p.m. Public pressure then forced ITV to bring forward its main news programme to the earlier time of 10.30 p.m. in 2004, and to 10 p.m. in 2008. The main news inputs from Britain's top three channels in 2007 (when our survey was carried out) were 6 p.m., 6.30 p.m., 7 p.m., 10 p.m. and 10.30 p.m.

As a consequence of their social inclusion and information commitments, public service broadcasters in Finland, Denmark and even Britain have been relatively successful in getting disadvantaged groups to join in the national ritual of watching the evening news. Much higher proportions of the less educated and those with low incomes watch television news on a regular basis there than in the US (see Table 6). This is not just a function of the higher levels of national television news consumption in these three countries. The difference between the proportion of those with limited education and the national average in regular exposure to television news is smaller in the UK and Finland than in the US; and the same

Table 7 Regression model for predicting hard news knowledge^a

	β	<i>t</i>	<i>Sig.</i>
US	-.27	-19.41	<i>p</i> < .001
Finland	.19	13.96	<i>p</i> < .001
Denmark	.15	10.59	<i>p</i> < .001
Gender	.11	9.58	<i>p</i> < .001
Education	.13	11.28	<i>p</i> < .001
Media Exposure	.09	8.01	<i>p</i> < .001
Interest	.49	40.08	<i>p</i> < .001

^aRegression model keeping UK as a baseline and adding the three nations (coded as dummy variables 1-0) and moderator variables as predictors of knowledge of hard issues. The overall model is reliable, $F(7,4172) = 554.51$, $p < .001$, $R^2 = .48$.

is true for low-income groups in the UK and Denmark. Similarly, ethnic minorities' exposure to national television news is below the national average in the US, but the same as the national average in the UK.

The greater degree of economic inequality in the US, compared with Europe, is probably the main cause of the large knowledge disparity in the US. But one reason why the low-income and low-education groups in the US are less informed about hard news is that they are much less inclined to watch national television news than their counterparts in the three European countries. Moreover, because American television news is limited to a single time slot, there are fewer opportunities to reach the inattentive.

Hierarchy of influence

But although cross-national differences in the organization of media, and how and when news is reported, are significant influences on levels of public knowledge, they are less important than deep-seated societal factors. This is highlighted by the regression model that we constructed for predicting knowledge of hard news topics in the four countries (see Table 7). The model accounts for a good amount of variance, approaching half in the pooled dataset. It shows that gender and education are strong predictors of knowledge, more so than media exposure. But what is very much more important (and whose mediation also diminishes these other factors as autonomous influences) is interest in politics. Respondents who say that they want to be up-to-date with what happens in government, are interested in politics and talk about politics are greatly more knowledgeable

than those who express lack of interest. Indeed, being interested is the single most important correlate of hard news knowledge in all four countries.

Retrospect

As a determinant of knowledge about public life, how the media are organized is less important than the widespread cultural processes in a society that stimulate interest in public affairs. But this does not mean that the architecture of media systems is unimportant. Our evidence suggests that the public service model of broadcasting gives greater attention to public affairs and international news, and thereby fosters greater knowledge in these areas, than the market model. The public service model makes television news more accessible on leading channels and fosters higher levels of television news consumption. It also tends to minimize the knowledge gap between the advantaged and disadvantaged and therefore contributes to a more egalitarian pattern of citizenship. Indeed, we suspect that a critical difference between the public service and market models is the greater ability of the former to engage an 'inadvertent' audience: people who might be generally disinclined to follow the course of public affairs, but who cannot help encountering news while awaiting delivery of their favourite entertainment programmes. The fact that public service television intersperses news with entertainment increases the size of the inadvertent audience.

But perhaps the most significant result to emerge from this study is the low level of attention that the market-driven television system of the US gives to the world outside America, and to a lesser extent, to hard news generally. This lack of attention contributes to the relatively high level of public ignorance in America about the wider world and about public life in general. Yet, a growing number of countries are converging towards the entertainment-centred model of American television. This trend seems set to foster an impoverished public life characterized by declining exposure to serious journalism and by reduced levels of public knowledge.

In closing, we would note that the impact of media system attributes (e.g. the scope of television deregulation) on public knowledge will inevitably vary across nations because of existing differences in civic education and the acquisition of cultural norms known to increase knowledge (i.e. interest in politics and the sense of civic duty). Similarly, we expect deregulation to have more powerful consequences for nations characterized by relatively higher levels of economic inequality. Nonetheless, even after taking these structural differences into account, media provision of public information does matter, and continued deregulation of the broadcast media is likely, on balance, to lead to lower levels of civic knowledge.

Notes

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1. If we follow up this first study, we shall of course investigate whether the shift towards an unregulated market as a basis of organizing the media has increased media independence from government. To judge from studies of the media in Korea, Taiwan, Hong Kong, Brazil, Mexico, Malta, the Middle East, Eastern Europe and Western Europe, among other places, the role of the market is more complex and ambiguous in terms of promoting media 'freedom' than it is often represented to be. See, for example, Lee (2006), Lai (2007), Matos (2008), Waisbord (2000), Hughes (2006), Sammut (2007), Sakr (2001), Sparks (1998), Hallin and Mancini (2004) and Curran and Park (2000).
2. In order to check for potential biases due to the political orientation of these papers, we also collected and analysed data from *The Guardian* as a control news source. As we found very little difference between *The Guardian* and *The Daily Telegraph* in terms of proportion of hard/soft news and main topics addressed, we dropped the first, smaller circulation title and retained the latter.
3. The overall inter-coder reliability test yielded 88 percent agreement in Finland, 82 percent in Denmark, and 84 percent in the UK, while that in the US ranged from a low of 72 percent to a high of 91 percent.
4. The survey was conducted in the eight-day period between 28 May and 4 June 2007. It was carried out by Polimetrix (PMX) in the US, YouGov in the UK and Zaperia in Finland, coordinated by PMX; and in Denmark by Catinet.
5. The fact that our online samples were matched according to a set of demographic characteristics does *not* imply that the samples are unbiased. All sampling modes are characterized by different forms of bias and opt-in Internet panels are no exception. In the US, systematic comparisons of PMX matched samples with RDD (telephone) samples and face-to-face interviews indicate trivial differences between the telephone and online modes, but substantial divergences from the face-to-face mode (Hill et al., 2007; Malhotra and Krosnick, 2007). In general, the online samples appear biased in the direction of politically engaged and attentive voters. For instance, in comparison with National Election Study respondents (interviewed face-to-face), PMX online respondents were more likely by 8 percentage points to correctly identify the vice-president of the US. This would suggest that our online samples are somewhat better informed about public affairs, in all countries, than samples based on personal or telephone interviews. However, the issue of sampling bias must be considered in relation to costs. In the US, national samples based on personal interviews cost US\$1000 per respondent, while matched online samples

cost approximately US\$20 per respondent, making larger samples possible and increasing the precision of the sample estimates. And as several analysts have noted (e.g. Bartels, 1985), a biased but precise estimator may in fact be preferable to one that is unbiased but imprecise.

In Denmark, the online survey reported in this study was duplicated using a comparable telephone-based sample. There were minor differences between the results, confirming the trend towards higher knowledge scores online noted earlier. But none of these small differences detract from the conclusions of this article. Detailed insights to be derived from comparing the two survey modes will be the subject of a separate methodological essay.

6. Newspapers are a more important source of news in Finland than they are in the three other countries. Daily circulation per 1000 adults in 2005 was 518 in Finland, compared with 250 in US, 294 in Denmark and 348 in the UK (Anon, 2006).
7. See also Dimock and Popkin (1997), a clever essay, which provided a key stimulus for this study.
8. In a recent comparative study of EU nations, for instance, citizens who reported a preference for public over commercial television programmes were more informed (Holtz-Bacha and Norris, 2001).
9. For example, the BBC is urgently seeking, in 2007, to connect to the news concerns of the young and ethnic minorities, following a report concluding that the corporation's television news is losing its appeal to these groups.

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