

Can Web Sites Change Citizens?

Implications of Web White and Blue 2000¹

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¹ The “Introduction” is co-authored by Zoe Baird and Arthur Lupia. It builds from themes and content first presented in Baird (1999). Subsequent sections draw on a report entitled “Evaluation: The Web White and Blue Network 2000” by Arthur Lupia. The interpretations of data in those sections represent Dr. Lupia’s professional judgments and not the views of Ms. Baird, the Markle Foundation, or any of the Web White and Blue 2000 charter sites. The full report is viewable at www.umich.edu/~lupia and www.markle.org/news. A free CD appropriate for classroom use contains the full report, an executive summary, and a multimedia presentation on Web White and Blue. To request a copy, please contact lupia@umich.edu. Quantities are limited.

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In its first decade of widespread use, the Internet has changed how millions of people learn about their world. It provides new ways to tell stories and makes growing amounts of information directly available to anyone who seeks it. How citizens learn about their elected officials is not immune from these changes. Numerous web sites make information about politics and government available at any time of day or night. These sites give citizens new opportunities to become politically engaged.

Today, we are still in the early stages of understanding what successful and meaningful applications to the political process will look like. There remains great uncertainty about how to make effective use of the Internet, particularly for public service oriented purposes. You can help reduce this uncertainty. We are now in a time where new commercial, cultural, social, and institutional norms continue to be established for the long term. This is a crucial period of definition for the Internet and its influence on the relationship between citizens and government. Political Science, so diverse methodologically and possessing special knowledge of so many aspects of politics, can help shape the Internet's future impact. Two kinds of activity are particularly important.

The first activity is providing expertise on strategies for more effective political communication. By its very nature, the Internet has the potential to foster an unusually rich culture of exploration and awareness of ideas and perspectives. But this won't happen by itself. Enterprising individuals and organizations must design web sites that attract and retain viewers' attention long enough to deliver critical information. While the early years of the Internet have generated substantial progress on this front, much more remains to be done.

The second activity is scientific analysis of the conditions under which promising strategies work. Fruitful analyses will focus on the concepts of *choice* and *impact*. Regarding choice, Internet viewers have many. They can tailor what they see and when they see it. Learning about how people choose from among the billions of available pages can clarify which strategies

for providing news and information are most likely to affect political interest and participation.

Understanding the impact of web sites entails taking questions of viewer choice seriously.

Scientists can also develop more reliable measures of a web page or web site's *impact*. Of particular interest are measures that clarify how a web site or page *changes* those who view it. By change, we mean that the page or site leaves a unique cognitive or emotional legacy. For example, for a site to increase citizens' interest in politics or level of political participation, its' content must leave a cognitive or emotional legacy that induces viewers to be more interested and active in politics than they otherwise would have been. If the site cannot produce such changes, it can have no such impact. As the study described below reveals, such measures are well within the reach of contemporary science.

If political science undertakes such activities, future content providers can base their strategies on transparent and replicable explanations. Of course, political scientists can explore many topics. While students, teachers, and researchers of politics may think it better to wait until the political Internet is more established, we contend that it is important to act now.

This is not the first time, after all, that new media have promised to improve the way we live. In radio's early years, the medium was seen to have characteristics analogous to those of the Internet today. There was great expectation that radio would transform democracy, create communities across borders, and produce a more educated and enlightened population. Amateur use dominated radio in the early 1900s; before 1928, most radio broadcasters were non-commercial. Soon, however, commercial broadcasters began to dominate the airwaves, and although radio has done much for society, it never fulfilled its full potential as an informational or community building tool. Television's story is similar. From the late 1940s to the early 1950s, television networks engaged in extensive experimentation and innovation. Once they identified profitable business models, however, these models predominated for decades. By the time public television was formed almost two decades later, it was essentially tacked onto a commercial system that had already been established.

Social scientists, by applying their skills sooner rather than later, can shape how the Internet changes politics. Indeed, scholarly innovations can help the commercial and non-commercial sectors transmit political information more effectively. To see how, note that major media corporations have not yet determined how to generate substantial revenue streams from the provision of online political news and information. This fact has led to limited corporate funding for basic research on effective ways to deliver political information. It also provides a unique window of opportunity for political scientists. They can, for example, help commercial sites understand the kinds of socially beneficial information for which audiences are willing to pay, while helping non-commercial sites understand where their efforts can make the biggest difference. Indeed, many public-oriented organizations want to use the Internet to improve civic engagement. Political science is well positioned to help show them how.

Emerging communications media and information technology create unprecedented opportunities to improve people's lives. If history is any indication, the window of opportunity to shape how the Internet's fosters political interest and participation may not be open for long. There is no time like the present for entrepreneurs to create new Internet strategies and for scholars to conduct careful studies about how to increase the Internet's social value.

This article presents one example of each of the two activities just mentioned. The Internet strategy is a project called Web White and Blue. The scientific analysis is a multi-faceted study of how Web White and Blue changed citizens. This collaboration between leading commercial and non-profit sites -- in the case of Web White and Blue -- and between a private foundation's vision and a novel scientific approach -- in the case of the study -- is unique in many ways including the fact that, unlike many cutting-edge studies of the Internet's impact, we are making its findings and methods freely available to the public.

The Markle Foundation, as part of its general strategy to promote the development of communications industries that address public needs, created Web White and Blue in 1998 with Harvard University's John F. Kennedy School of Government and America Online. The goal was

to highlight the potential of the Internet to expand citizen participation and interest in politics. In 2000, a reinvented Web White and Blue entailed new partnerships and services. Web White and Blue became a non-partisan consortium of 17 of the largest news and political information websites. The charter sites of the Web White and Blue 2000 Network were ABCNews.com, America Online, Excite, CNN.com, FOXNews.com, I-Village.com, MSN.com, MSNBC.com, Netnoir.com, MTV.com, NPR.com, NYTimes.com, Oxygen.com, PBS.com, WashingtonPost.com, USAToday.com and Yahoo.com. All of these sites had reciprocal links with the site <www.webwhiteandblue.org> (henceforth, WWB.org) and all could draw content from WWB.org for their own use at no cost.

Among the many new features on WWB.org was the first Rolling Cyber Debate between the presidential candidates. Designed to complement traditional televised debates, the Rolling Cyber Debate – active from October 1 through November 8, 2000 – consisted of a daily exchange between the candidates on topics provided by the campaigns themselves and by citizens via the charter sites of the Web White and Blue Network. WWB.org also offered citizens a daily compilation of political information online, which provided reporters and citizens with up-to-date listings of online political activity. Thousands of sites from the non-profit community participated as well, with WWB.org highlighting such efforts on a regular basis. The state-to-state directory, another resource of the site, offered information that became particularly useful during the Florida recount, as it provided easy access to the Florida Secretary of State’s site and other relevant sites.

The following section reviews findings from the study of Web White and Blue’s impact. Researchers and teachers who want to learn more about Web White and Blue 2000 can seek archives at <www.webwhiteandblue.org> or the full study at <www.markle.org/news>.

The Study

In the fall of 2000, Dr. Lupia conducted a study of how news and information web sites affect citizens. The charter sites of the Web White and Blue Network were the study’s primary focus. Dr. Lupia designed that study to fill critical gaps in scientific knowledge on the topic.

The study's components include an analysis of WWB.org usage statistics, a survey of WWB.org users, elite interviews with decision makers at the Web White and Blue Network's charter sites, a randomized national Internet survey that gauges the impact of multiple web sites, and laboratory experiments that clarify why some web pages are more effective than others. Some of these components, such as the usage statistics, elite interviews, and survey of site visitors, were standard fare for Internet studies in 2000. The combination of laboratory experiments and Internet polls, by contrast, provided an innovative edge. It produced improved estimates of a political web site's impact under normal usage conditions (i.e., a person sitting in front of a computer with the freedom to choose which pages to view). Collectively, the five components reveal which of the web sites examined boosted viewers' confidence in the quality of political information online and raised their interest in politics.

Analysis of Internet Usage Data

From its launch on June 28, 2000 through November 8, 2000, WWB.org received 7,518,608 page views. One page view is equal to one person viewing one page on a web site. Jonah Seiger of Mindshare Internet Campaigns LLC collected the data we used to identify trends in which web pages attracted viewers' attention. Figure 1 depicts one such trend for the Rolling Cyber Debate's "Question of the Day" (henceforth QOD).

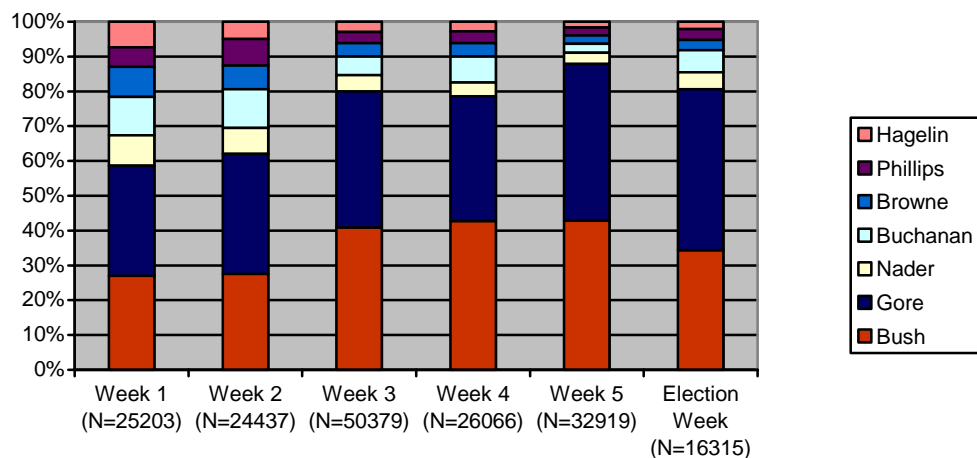


Figure 1. Page-view distribution for Question of the Day by Candidate and Week

The “Question of the Day” allowed unusually direct interactions between citizens and candidates. Citizens participated by submitting questions through the charter sites, in chat rooms and in other online forums. The questions were then reviewed and selected by Web White & Blue with the supervision of the charter-site editors. One question was posted per day. The posted questions sometimes asked for clarification or a follow-up on existing campaign themes. In other cases, the QOD led candidates to discuss new issues (e.g., Napster). In most cases, candidates responded within 24 hours and often offered rejoinders to their competitors’ answers. For each question, each candidate’s response had its own unique page. Our data includes viewer choices of whose responses to read.

Figure 1 shows the percentage of QOD page views by candidate for each of the Rolling Cyber Debate’s six weeks of operation. It reveals an important variation in which candidates’ responses QOD viewers sought. Early in the debate, minor party candidates drew relatively high levels of attention. As answers to open-ended questions in our laboratory experiments suggest, the interest was partially due to the perception that minor party candidates’ responses were less “canned” and more sincere than those of Bush and Gore. Some viewers also appreciated Pat Buchanan’s timely rebuttals, which kept his viewer share high relative to his poll numbers, particularly in early October.

As Election Day approached, however, QOD viewers turned increasingly to the frontrunners. The percentage of QOD page views devoted to major party candidates rose from 59% at the beginning of the debate to 81% at the end. Growing interest in Bush QOD pages drove 76% of the total increase in weeks three and four. This surge occurred at the same time that Bush’s poll numbers were rising (CNN’s tracking poll had Bush ahead by 4 points on October 14th – the end of the cyber debate’s second week, by 11 points on October 21 – the end of week three, and 14 points on October 27th – the end of week four.) Growing interest in Gore QOD pages accounted for almost all of the subsequent increases in the major party viewer share. This

surge corresponded to Gore's rise in the polls – by week six, Bush's lead in the CNN poll was back down to 4 points.

As the election tightened and its outcome became less certain, WWB.org users paid more attention to the front-runners. The trends are evidence that citizens' informational needs evolve over an election cycle. They imply that those who want to provide citizens with the information they desire should devote increasing attention to potential winners as Election Day approaches.

Analysis of the Voluntary User Survey

To clarify whether and how these page views matter, Dr. Lupia asked that a voluntary user survey be added to WWB.org. The survey joined questions about viewers' Internet habits and prior interest in politics with questions about how they judged WWB.org. The survey was added to the site on October 11, and was completed 3,052 times.

To increase what we could learn from the survey, we repeated questions from a survey placed on WWB.org in 1998 (N=925) by Pippa Norris and Marvin Kalb. Comparing responses from 1998 and 2000 yielded interesting findings. Figure 2, for example, depicts responses to the question "During this election what is your primary media source for election information?" The percentage of respondents citing newspapers as their primary source of information dropped approximately 14 points from 1998 to 2000 while the percentage citing the Internet as their primary source increased by about the same margin. The percentage of people citing other mediums stayed relatively constant. The following question on both surveys queried respondents' secondary media source. From 1998 to 2000 no secondary source moved more than 3 percentage points: the Internet (33.9% in 1998 to 33.4% in 2000) and newspapers (23.3% to 21.2%) as secondary sources were down slightly, while television was up slightly (26.7% to 29.0%).

Combined, these statistics show a sizeable exodus from newspapers to the Internet as the primary source of election information for WWB.org users. It wasn't just that newspapers and the Internet switched places in users' *top two* sources of electoral information. To the extent that the 1998 and 2000 respondents are otherwise comparable, the data shows that a sizeable portion of

the WWB.org user population have *substituted* the Internet for newspapers as one of its two main election news sources (i.e., newspapers went from first place to third place or lower in many users rankings while the Internet did the opposite). In other words, the main victim of our respondents “rush to the web” is the newspaper.

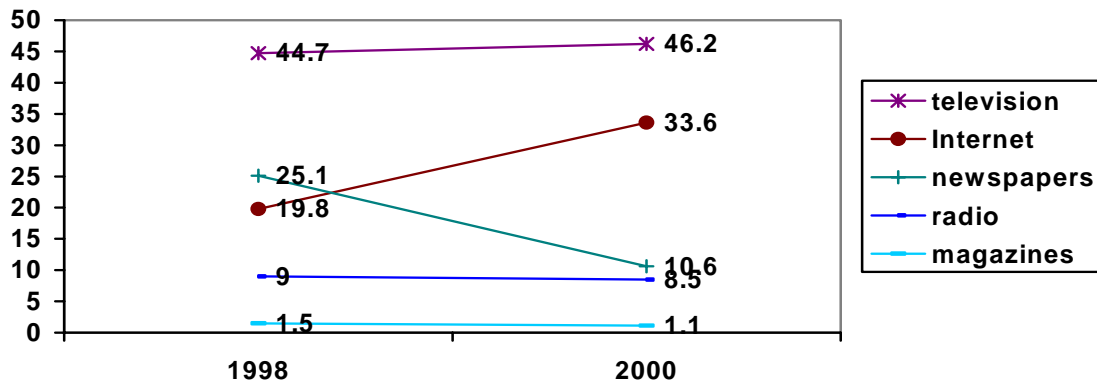


Figure 2. WWB.org users’ primary source of political information.

This survey, by allowing users to express their views about WWB.org, provides information that usage statistics cannot. However, the people who take such surveys are not like broader populations. They are the select few who are so interested in news and politics that they find WWB.org and then stay on it long enough to answer questions about it. They are, as a result, more likely to say nice things about the site than would a more representative sample. While there is no reason to doubt that the survey tells us about *these users’* experiences with the site, a more general understanding of its impact requires additional data.

Analysis of the Internet-Based Survey

To learn about how news and information web sites affect a more representative population, we contracted with Knowledge Networks of Menlo Park, CA to administer a unique aspect of the study. Like telephone-based public opinion polls, Knowledge Networks recruits respondents via telephone. Using random digit dialing to increase the likelihood of contacting people from all walks of life, they then offer free Internet access to respondents who agree to participate in web-based interviews (see Krosnick and Chang 2001 for research on the quality of

their national respondent base). The advantages of Internet-based surveys include the fact that images, audio, and streaming video can be sent to respondents during questioning – which widens the kinds of hypotheses analysts can test (see, e.g., Lerner, et.al. 2002, Prior 2002).

We presented Knowledge Networks with a new design. In it, respondents began a seemingly standard interview about politics and their Internet usage. Then, without warning, the interview was interrupted, respondents were sent to one or two randomly selected sites for five minutes each, and were told that the interview would continue after the viewing session. When the interview resumed, respondents answered questions about what they saw. Some questions asked them to agree or disagree with statements about site attributes (i.e., “I can use [the site] to get the information I want quickly and easily”), while other questions focused on how the site affected them (i.e., “[The site] makes me more likely to talk about politics with others”). A week later – and again without prior notice -- all respondents were contacted for a brief follow-up interview. Between October 13 and November 6, 1,199 participants completed our surveys.

This study produced several interesting findings. One finding focuses on the follow-up interview and is displayed in Table 1. In that interview, we asked if they revisited the site or sites they viewed during the initial interview. We did so because there is an important difference between feeling good about a site after viewing it and actually taking the time to revisit it later. Revisitation suggests a level of interest so large that a respondent would choose to view that site over all of the other things that he or she could do. Table 1 documents revisitation rates for the sites that we tested. As a benchmark for evaluating the extent to a single exposure to the site could have prompted the revisit, the table also features responses to the question “Have you ever heard of [the site]?”, which we asked near the beginning of the initial interview.

Initial Awareness	%	Revisited in the Following Week	%
CNN.com	80	CNN.com	25
Foxnews.com	66	Vote-Smart.org	18
USAToday.com	59	Foxnews.com	16
NYTimes.com	46	USAToday.com	14
Vote-Smart.org	7	Politics.yahoo.com	9

I-Syndicate.com	6	WWB.org	9
Politics.yahoo.com	5	I-Syndicate.com	7
PoliticalInformation.com	1	NYTimes.com	4
WWB.org	1	PoliticalInformation.com	3

Table 1. Respondent Reactions Affect Revisits

Before drawing conclusions from the table, it is worth noting that the numbers in the two columns are not strictly comparable. Brand awareness does not constitute evidence of prior use. And just because 80% are aware of CNN does not mean that we should expect 80% to use the site within a given week. With those caveats in mind, here is how to interpret the data.

Three of the four sites for which respondents were most aware in the initial interview are also the ones that respondents were most likely to visit afterwards (CNN, Fox, and USA Today). The site for which this pattern does not hold is the New York Times site, which – it is worth noting – was the only one that required registration as a condition for viewing most of its content. Taking the Times’ place among the top four revisited sites is Vote-Smart, the site that respondents regarded as best on several qualitative dimensions.

Respondents made other distinctions as well. Of the two least known sites initially, <politicalinformation.com> and <WWB.org>, the percentage revisiting WWB.org was more than triple the percentage revisiting <politicalinformation.com>. It is also true that respondents ranked WWB.org higher than <politicalinformation.com> on every qualitative dimension that we measured. Yahoo’s political site was also evaluated more favorably and far more likely to be revisited than <politicalinformation.com>.

Indeed, respondents’ site evaluations provided a good indicator of whether they would revisit a site on their own. When respondents identified sites that they regarded as inferior in terms of performance (e.g., which we measure in terms of responses to agree/disagree questions such as “I can use [SITE NAME] to find information that I have not seen elsewhere” and “I can use [SITE NAME] to get the information I want quickly and easily”), they refused to revisit – a justifiable choice given the presence of numerous other sites providing similar information. By

contrast, they returned voluntarily to sites they rated more favorably. In sum, the large number of available web sites gives citizens many options when searching for information. Those who want to use the Internet to increase their political interest or participation should learn as much as they can about these choices (see, e.g., Lupia and Philpot 2002).

Analysis of Laboratory Experiments

Our laboratory experiments address a problem associated with drawing inferences about a web site's impact from more commonly available kinds of data. The problem is that people who choose to view one political web site are likely to also view others (e.g., a user who views CNN is more likely to also view other news sites – i.e., the New York Times site -- than is a user who does not view CNN). As a result, it can be difficult to determine how a user's exposure to *a specific site* changed the user. Our experiments are designed to reduce this problem.

We conducted the experiments at the University of California, San Diego from October 16 through November 4, 2000. There, experimental subjects – who were students or non-student members of the local community -- were brought to a laboratory and paid \$35 for participating in a one-hour study of the Internet. In the middle of each experimental session, subjects were instructed to use certain web sites to learn as much as they can about the upcoming presidential election. The key experimental variation was that subjects were randomly assigned to one of eight web site lists. The lists varied from “use WWB.org only” to “use the following 15 sites” to having no directions at all. The point of the variations was to document how changes in the subjects' options affect their responses to individual web sites. If, for example, what people say about a site when it is the only site they view is the same as what they say about it when they can choose from a longer list of sites to view, then we should take the response more seriously than if the variations yield very different responses.

The experiments produced many interesting findings, including the following. Figure 3 depicts subject responses from three distinct groups. The first group was instructed to view

WWB.org only. The second group also had <vote-smart.org> on their list. The third group’s list added <foxnews.com> as well. The figure shows the percent of subjects responding “true” to the question “I can use [name of site] to get the information I want quickly and easily.”

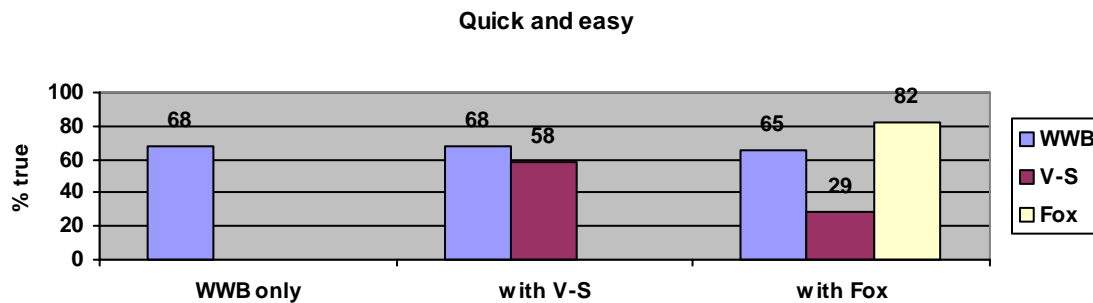


Figure 3. Greater freedom of choice changes reactions to individual sites.

Subject evaluations of WWB.org on this dimension drop slightly when they are able to view either of the other sites. In this case, as we move away from induced viewing of WWB.org only towards contexts with greater freedom of choice, responses to the question are relatively stable. Subject evaluations of <vote-smart.org>, however, drop dramatically once <foxnews.com> is introduced. This is noteworthy because the site is not changing across the treatments. Therefore, the cause of the different responses was the experimental condition – the change in the user’s freedom of choice.

In fact, we saw this same pattern repeatedly – when users saw <vote-smart.org> alone, they said very different things about it than when <foxnews.com> was also viewed (<CNN.com> had a similar effect on WWB.org responses in a parallel experiment). Part of the explanation for this pattern is that as we increased the number of sites on subjects’ lists, they spent more of their time on sites with established brand names. This finding suggests that the lure of brand names is high in the political Internet. The implication for those who want to increase political interest or participation is that smaller dot-coms or non-commercial dot-orgs must provide unique content or presentational strategies if they are to attract an audience. Trying to outdo the current leaders at

their own game is a recipe for ineffectiveness, as the backers of now bankrupt sites such as politics.com and voter.com have learned.

We also gauged the Internet's power to affect citizens' evaluations of presidential candidates. Specifically, we asked all 428 of our experimental subjects the following true/false question: "[Site X] makes me think about at least one of the candidates in the presidential election in a new way." Of the 316 subjects answered this question about WWB.org, approximately 50% reported changing how they viewed at least one of the candidates, with an even split between more negative and more positive evaluations. A caveat to keep in mind when interpreting this statistic is that many of our subjects had not previously used the Internet to learn about the election – so the statistic is partially attributable to the fact that some of our subjects may have been thinking deeply about the candidates for the first time. This finding does, however, signal the substantial potential for political learning that effective Internet presentations can provide.

Conclusion

It is fashionable to claim that the Internet did not have an important effect on the 2000 elections and has only limited potential for affecting politics in the immediate future. But what does it mean to say that the Internet has had little or no effect? In a year where the presidential election was determined by a few hundred votes in the state of Florida and where the balance of power in the U.S. Senate was determined by a similarly close margin, it was possible for even a small Internet effect to change electoral history.

A problem with debates about the Internet's political impact is that systematic data about its effects is difficult to come by. Hit counts can reveal who saw a web site, but they provide little credible evidence about the extent to which a web page or web site changes its viewers. This study reduces uncertainty about the Internet's political impact by documenting and analyzing how key political web sites affected citizens. Others can build on this effort by using our research design to compare the impact of political web sites to that of newspaper editorials, political ads,

or other means of communication. If conducted carefully, such research can help make the Internet a more effective means for increasing political interest and participation.

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