The Citizen Journalism Web site
“OhmyNews” and the 2002 South Korean Presidential Election

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ABSTRACT
This paper is one of the first in a series of case studies that examines
the impact of the Internet and technology on democracy. This specific
case investigates the influence of the participatory media Web site
OhmyNews during the 2002 South Korean Presidential election. It be-
gins with a discussion of the phenomenon of citizen journalism and the
importance of an independent media to democracy. It next moves to a
discussion of the motivation for the creation of OhmyNews by Oh Yon
Ho. The case also explains the OhmyNews model for producing and
editing news. It then discusses how real world activism may have con-
tributed to online activism and lays out a narrative of OhmyNews’
activity during the Presidential election. Finally, the paper concludes
with a discussion of the feasibility of the OhmyNews business model,
the site’s struggle to remain profitable, and the organization’s less than
successful attempt to expand to other similar markets, notably Japan.

THE INTERNET & DEMOCRACY PROJECT
This case study is part of a series produced by the Internet and
Democracy Project, a research initiative at the Berkman Center for
Internet & Society, that investigates the impact of the Internet on
civic engagement and democratic processes. More information on the
Internet and Democracy Project can be found at
http://cyber.law.harvard.edu/research/internetdemocracy.

The initial case studies include three of the most frequently cited exam-
pies of the Internet’s influence on democracy. The first case study looks
at the user generated news site, OhmyNews, and its impact on the
2002 Presidential elections in South Korea. The second case documents
nontraditional media and the use of cell phone technologies for infor-
mation sharing and organization of protesters during Ukraine’s Orange
Revolution. The third case study analyzes the composition of the
Iranian Blogosphere and its possible impact on political and democratic
processes. The objectives of these initial case studies are to write a nar-
rative description of the events and the technology used in each case,
to draw initial conclusions about the actual impact of technology on
democratic events and processes, and to identify questions for further
research.
CITIZEN JOURNALISM

It is widely perceived that the Internet and technology may impact democracy through increased sharing, production, and aggregation of information. One example of this type of activity is user-generated media sites—often also referred to as citizen journalism or participatory media sites. This type of online journalism is characterized by the use of everyday citizens as reporters, usually unpaid, in the place of professional journalists. They also take full advantage of interactive Web 2.0-type technologies that allow readers, reporters, and in some cases the professional staff of participatory media sites to comment on stories, as well as to debate and discuss issues in ways that are impossible in traditional mass media. These sites are also known for the type of news coverage they provide, which is often more personal and localized than traditional news media coverage. The South Korean Web site OhmyNews is known as a pioneer in this field, not only for being an early player, but for having created a successful model with citizens as journalists and professional editors to filter content.

Proponents of user-generated media sites see this type of news production as transformative. They argue that it gives a voice to those who would never be heard in the mainstream media and provides an opportunity to share their views through a widely accessible platform. Supporters also see participatory media as removing supposed ‘elite’ gatekeepers in the media who choose for consumers what news is important, and which experts will provide the necessary news analysis. Participatory media also is viewed as less susceptible to the potential ethical problems encountered by the mainstream media which can feed the perception that they are soft on corporate sponsors out of fear of losing advertising dollars or easy on government leaders in order to retain access to high level policy makers. Online citizen media also allows readers to transcend geographic boundaries to learn from a Ugandan what is important in Uganda, instead of an American journalist based in a regional hub far from the events on the ground. Further, the diminished barriers to entry and low production costs mean that Web sites can focus on ‘hyper-local’ news that traditional commercial media do not find profitable.

Finally, it is argued that the interactive features on these Web sites, including the ability to append user comments to the articles, allow for a more democratic and robust discussion of current events and news than one-way tradi-

For critics of the participatory media model, the ‘news’ these sites produce is untrustworthy since it is not created by professional journalists and is not subject to the same rigorous editorial process used in traditional media. Moreover, it is argued that without the code of journalist ethics that is drilled into professionals through formal training or on-the-job experience, partisanship, conflicts of interest, and shoddy journalism are likely to be the norm. Facts are missed, sources not checked, and the benefits of the editorial process are lost. Further, these news sites can give a voice to extremists and help spread messages of hate or xenophobia that would never be allowed in mainstream media. Critics also argue that the ability to personalize the news one sees through this type of media allows readers to filter out the news that they do not care about, at the expense of broader viewpoints that contribute to a better understanding of one’s entire community and current events. Citizen media sites, and the Internet in general, allow users to create echo chambers for themselves, which promotes greater group polarization and balkanization.

This case study does not seek to resolve this broader debate, but readers will notice elements of both arguments throughout the description of the OhmyNews model and its activities during the 2002 Presidential election. Instead, this paper provides a description of a user-generated media site that is widely perceived to have had an impact on political events in South Korea, and describes factors that help to explain why this example emerged in South Korea around this particular election.
THE ROLE OF JOURNALISM AND PARTICIPATORY MEDIA IN A DEMOCRACY

Before investigating the influence of OhmyNews on the 2002 South Korean election, it is worth briefly reviewing the role of journalism in a democracy. Journalism is often credited with providing the public an additional and essential form of representation. In a 1787 letter to Virginia statesmen Edward Carrington, Thomas Jefferson wrote that, “…the basis of our governments being the opinion of the people, the very first object should be to keep that right [of a free press]; and were it left to me to decide whether we should have a government without newspapers or newspapers without a government, I should not hesitate a moment to prefer the latter.”

According to Jefferson, the press should be protected because the citizen’s voice, which the press purports to represent, is important for democracy. Further, the press can also promote greater inclusiveness if it allows for a full range of opinions, just as each citizen has an equal political voice within a democracy.

Finally, the media not only provides citizens with information required to make sound decisions but also can serve as a watchdog, or additional check, on government. Finally, the media facilitates communication among citizens. According to Schudson, “The news media should provide a forum for dialogue among citizens that not only informs democratic decision making but is, as a process, an element in it.” That is, the media should act as a forum where citizens can debate public issues and determine the path they wish society to take.

OhmyNews fulfills all these functions, yet in a slightly different manner than described above. Traditional journalists may attempt to represent the views of citizens or inform these views, treating the citizen as an information source or a consumer but never as a producer of news. OhmyNews removes this filter, allowing citizens to create their own content and represent their own interests on the site, rather than having their ideas filtered through a professional journalist. The slogan of OhmyNews is ‘every citizen is a reporter.’ In so doing, OhmyNews gives a public platform to a large number of citizens who had previously not been represented in the media.

The informational role of OhmyNews is also influenced by the closed and conservative South Korean media environment in which OhmyNews emerged, where three conservative daily newspapers—Chosun Ilbo, Dong-A Ilbo, and Joong Ang Ilbo—monopolized 80 percent of daily circulation. Heekyung Hellen Kim elaborated on the role of OhmyNews in opening up the public sphere to new voices when she said, “The three big newspapers asked credentialed intellectuals to write columns, but OhmyNews gave that opportunity to ordinary citizens.”

These voices not only had different credentials but were of a different political persuasion than columnists in the existing major papers. The site’s creator, Oh Yeon Ho, identifies OhmyNews as “open progressivism,” a distinct leftward shift from the media establishment.

Thus, OhmyNews granted an influential public platform not only to a new set of users as reporters, but also highlighted a different set of political priorities than those normally represented in the South Korean press.

Finally, for proponents of user-generated media, OhmyNews creates a more open space for communication about public issues. Many interactive features on the site allow citizen reporters to communicate with the site’s staff and readers. It is possible these features that allow for interaction between the citizen journalists and readers also lead to greater political action offline, an assertion that will be more fully discussed below. Although the exact nature of the phenomenon is not yet been fully understood, it is possible that OhmyNews acted as a platform for some members of its online community to coordinate political activities. These activists appear to use OhmyNews as a space for sharing their thoughts on political issues, making contact with likeminded citizens, and then coordinating together to create action in the offline world. If OhmyNews serves as a locus for political organization this would cast citizen journalism in a more politically active light, and therefore not only a source of citizen-generated news, but also a hub for political mobilization and social change.

THE KOREAN MEDIA LANDSCAPE, OH YEON HO, AND THE CREATION OF OHMYNEWS

OhmyNews was founded by progressive journalist and political activist Oh Yeon Ho. Born in rural Gokseong in 1964, Oh was politically active from a young age. In 1986,
at the age of 22, he was arrested and imprisoned for a year for taking part in pro-democracy rallies against military dictator Chun Doo-Hwan.12

After graduating from Seoul’s Yonsei University in 1988, Oh worked for a leftist monthly magazine called Mal, which had a relatively small readership and had little influence among the largely right-leaning newspapers that dominated Korean media.13 Limited in his influence on both readers and other media outlets, Oh came to see himself as ‘a proletarian of the media world’ and started to become interested in ways to end the isolation of liberal media in Korea.14

Korean media fell under political control during the period of military dictatorship from 1961 to 1987, and later, during the democratic period, was influenced by cronyism. These trends contributed to the positioning of the Korean media to the right on the political spectrum. Following the Korean War, the independence of the press was further limited through a series of laws, including the Periodical Publication Law of the early 1980’s, which consolidated provincial newspapers and broadcasting companies into single entities. Jinbong Choi argues that these policies were enacted so that the government could more easily control a smaller number of media outlets.15

The media gained more freedom in the 1990’s, following the 1987 Presidential elections, but what had once been governed by reactionary politicians was now governed by conservative commercial interests that rarely antagonized the government, particularly as this could potentially hurt profits. According to Jinbong Choi:

In Korea, after the mass media got freedom from the military regime, they changed dramatically to become commercial media. As a result, today, the Korean mass media avoid reporting controversial issues such as political and environmental issues. In order to attract viewers, they focus on soft news and event-oriented reporting. In addition, they report public issues and problems not as continuous reports with follow-up investigations, but as one-time reports with no suggestions for solutions. In these circumstances, Koreans lack exposure to some important issues affecting the country. Because the Korean media do not function as watchdogs of political institutions and economic power and as a public sphere, Korean audiences do not have the opportunity to debate these current issues through the media.16

New newspapers, which were often more liberal, did not have the financial backing or connections of those created during the period of military dictatorship. As Heekyung Hellen Kim notes, “Korean media was really dominated by three newspapers—Chosun, Dong-A, and Joong Ang.... Historically, the government controlled the whole media. It’s not like there was competition and these papers survived competition. They were supported by the dictatorial government.”17

The unethical behavior of Korean journalists is another explanation for the widely perceived media bias in the country. Some journalists create informal agreements with political parties which prevent them from objectively covering political news. “Many Korean journalists see journalism as a stepping-stone to a career in politics,” notes Jingbon Choi. “Therefore, journalists who eventually want to become members of the National Assembly try to establish secret connections with political parties many years earlier.”18 This arrangement often included a tacit agreement to provide positive coverage to these parties.

Against this media backdrop, Oh Yeon Ho believed the Korean media could be realigned by increasing citizen participation. “While I was a journalist for Mal,” Oh noted in a 2003 interview, “I continuously thought about things like how I could change journalism—so that not only professional journalists, but also citizens participated in it.”19 His interest in participation came not only from his democratic ideals, but also from a pragmatic perception that Korean citizens were more progressive than the media they consumed. For Oh, increasing citizen participation in media could thus balance the media landscape by increasing the number of liberal voices. As a journalist working for Mal, he would give frequent lectures to university students about how to become a journalist. The talk was called ‘Every Citizen Is a Reporter,’ the eventual slogan of OhmyNews.20
BUILDING A DIGITAL ENVIRONMENT

Distribution was an early barrier to Oh’s idea for citizen journalism. “Because there was no Internet at that time,” recalls Oh, “because there was no such concept as the Internet, it seemed it would cost too much if I made it with paper. Then the Internet came out and I thought, ‘Ah, I could do it through this space!’”

Oh’s earliest foray onto the Internet came in the early nineteen-nineties with the advent of the bulletin board system (BBS). BBS was an early way for people to meet and exchange views online, and Oh hoped it could also be a venue for alternative political discourse. He tried posting politically oriented news items on several online bulletin boards but received little response.

Oh’s desire to create a means for the public to take part in political discourse was tempered by Korea’s Internet infrastructure in the mid-1990s. Korea’s Internet boom did not begin until 1997, following the Asian financial crisis that year. Until that time, Korea had seen strong economic growth through manufacturing of electronics and automobiles by conglomerates like Hyundai, Samsung, and LG. However, following the Asian financial crisis in 1997, the Korean government implemented a bold new Information Technology (IT) policy that aimed to create a new knowledge-based economy. The Korean government chose to promote IT as, “…an area of growth that would serve the recovery of the overall economy.”

Part of this plan was to make broadband Internet as pervasive as telephone service. Between 1999 and 2005 the government invested 0.25 percent of GDP in a high-speed Internet backbone and 0.2 percent of GDP in soft loans to Internet service providers to increase supply, while also promoting competition among providers to bring down costs. For example, the Korean government began work on the Korean Information Infrastructure (KII) project, created to design, test, and build high-speed internet infrastructure applications for the country. In 2002, for example, the Korean government invested $2.8 billion in their KII project to provide public network infrastructure to towns across the country. At the same time, the Korean government worked to stimulate demand for Internet services. In 2000, the Ten Million People Internet Education project was launched with the goal to teach ten million Koreans how to use the Internet by the end of 2002. The program was considered a success, with 4.1 million people trained in 2000 alone.

The Internet promotion policy was phenomenally successful (See Exhibit 1). Internet use increased steadily, albeit rather slowly, until 1999, when the government’s broadband plan kicked growth into high gear. Currently, Korea has one of the highest rates of overall Internet connectivity in the world. Seventy-five percent of Korean citizens are Internet users.

It is significant not only that Internet connectivity is so pervasive, but also that it is so fast. The faster the Internet connection, the more time a user is likely to spend online and the more likely they are to create their own content, since uploading text, pictures, and video is more convenient.

Speed and pervasiveness have made the Internet an integral part of Korean life. Teenagers buy clothing and accessories for their online avatars (their online personas in applications that create virtual worlds such as Second Life), and a television channel is dedicated solely to broadcasting top players competing in online multi-player games. As of 2004, a whopping 79 percent of all Koreans in their twenties and thirties—25 percent of the entire Korean population—had a personal homepage. These pages, called mini hompies, are popular because they can be personalized. Not only can users add their own background art and decorative furniture and banners, they can also blog on the site and post their own photos. This digital environment, in which many Koreans feel comfortable contributing their own content to an online space, likely contributed to the success of OhmyNews. “Korea’s Internet infrastructure is superior to most other countries,” said Oh Yeon Ho at a 2004 Harvard University speech. “It makes multimedia, always-on service and interactive news service possible.”

THE BIRTH OF A NEW KIND OF NEWS

Oh Yeon Ho founded OhmyNews in 1999, taking the name from the comedic catch phrase ‘Oh my God!’ which was popular in Korea at the time. To raise the capital necessary to create the site, Oh sold his house and received funding from five sympathetic Korean businessmen. Together, these six became the first stock holders of
OhmyNews. He asked web designers he knew to write the site's code. By late 1999 he was testing the site. The first beta edition of OhmyNews came out December 21, 1999 and the site launched officially on February 22, 2000 at 2:22 p.m., a date meant to signify OhmyNews break with traditional twentieth-century journalism.

Dan Gillmor describes the traditional media relationship as a lecture in which consumers either accept or reject what is produced, but have little say over content. When Oh Yeon Ho attempted to change this media environment his goal was not to replace old lecturers with new ones, but to invert the system of media production entirely. On the day OhmyNews launched in February 2000, Oh wrote a passionate article on the site entitled “The Revolt of the 727 News Guerilas [sic].” In that article, he laid out his vision for OhmyNews. “OhmyNews declares it is making a complete departure from the media culture of the 20th century,” he began. “We are going to change the culture of how news is produced, distributed, and consumed, all at one time.”

As a first step, Oh planned to demystify the profession of journalism. “Journalists aren’t some exotic species. They’re everyone who seeks to make new developments, put them into writing, and share them with others,” Oh continued. “This common truth has been trampled on in a culture where being a reporter is seen as something of a privilege to be enjoyed.” Oh stated that one of his tactics was to, “…abolish the threshold for being a reporter.”

He also wanted to change what was considered news. Oh stated, “We are not just reforming the culture of the Korean media, we are drawing a new line in the history of the world press. We’re changing the world press’s basic understanding of how the news is done. More than anything else, OhmyNews is changing the way people think about what’s newsworthy.” Oh wrote, “In the 20th century, a presidential press conference was news, and tears shed by one’s lover the night before were not. We will now be restoring that lost half of the news.”

CITIZEN REPORTERS WITH PROFESSIONAL EDITORS

Despite Oh’s enthusiasm for alternative news written by non-traditional journalists, OhmyNews used elements of professional media that many argue contributed significantly to the success of the enterprise. The OhmyNews model for news production uses editors to increase both credibility and readability. In addition to seeking to meet the site’s high standards, contributors are motivated by monetary incentives and high levels of interactivity between reporters and readers. The use of editors helps ensure that the articles published on OhmyNews are informative and fact-based, while the interactive aspect of the model allows the site to act as a forum for discussion while also eliciting feedback on its contributors.

To be published in OhmyNews, a citizen reporter must first submit an article to be reviewed and edited by the staff. In order to combat the common perception that citizen journalism is unreliable, editors with professional journalism experience sift through stories which are submitted, rejecting about a third. If facts are uncertain a staff member can travel to the site of the event to re-interview witnesses and ensure that the story is accurate before it is published.

However, the OhmyNews editing process has failed in the coverage of some important news events. In 2002 two schoolgirls were accidentally killed by an American military vehicle. Some reports on OhmyNews stated that the soldiers had killed the girls on purpose, which was both untrue and highly inflammatory. This example highlights a major criticism of citizen journalism: that it is not as reliable and is less professional than traditional journalism. Dan Gillmor responds to this criticism, noting that traditional media also has significant credibility issues. Gillmor’s position is that both online and offline media sometimes print errors, but as long as they attempt to correct those errors, there is no reason for castigation. “I do assume the paper has done its best [to present the facts],” he writes, “and that there are institutional mechanisms in place to correct something if it’s wrong.”

The OhmyNews model included monetary incentives for citizen reporters. If a reporter’s article is published in OhmyNews, he or she can receive up $20 per article, depending on where the article appears on the site. In addition, readers can ‘tip’ reporters up to $54 for writing particularly good articles and send the money online or by cell phone. Although there are isolated cases of authors earning thousands of dollars in tips for a story, the tips and payments serve more as encouragement than income. The
payment system may send a message to citizen reporters that what they were producing is valuable, but also fits the interactive model of the site.

Communication between reporters and readers is an important facet of the OhmyNews site and of Web 2.0 technologies in general. Unlike traditional newspapers, where the journalist and reader rarely interacted in the past, citizen reporters and readers on the OhmyNews site are given multiple opportunities to share their views. Like a blog post, each article has a comments section where readers can give their opinions. On the Web page where the article is displayed there is also a link beside the author’s name so readers can contact the reporter by e-mail with any questions, criticisms, or corrections. An eyeball icon on the page shows how many times the article has been read. Perhaps not coincidentally, these interactive features are becoming more prevalent on mainstream media Web sites.

Between 2000 and 2002 the site grew rapidly. Less than a year after its launch, in September of 2000, the site had 5,000 citizen reporters. In November of the following year, the number had risen to 15,000. The staff of editors also grew, from four in 2000 to 53 in 2003 and 95 in 2006 (See Exhibit 2). Visitors per day also grew rapidly, reaching into the high millions when important news stories were featured.

The rapid growth seems to have surprised even Oh Yeon Ho. “I did not expect that much,” he confessed. “I had confidence that citizen participation in journalism was something that citizens currently desired. But I could not imagine that the fire would spring into a blaze in such a short time.”

Of course, OhmyNews is not without its critics. “The system is not perfect. In fact, it appears to be somewhat fast and loose,” an article in Wired magazine stated in 2003. “OhmyNews has published hoaxes, including a report of the assassination of Bill Gates generated by a fake CNN news site. Several articles have been retracted and there are ongoing problems with reporters’ undisclosed conflicts of interest.” The editor filtration system instituted by Oh was created to add credibility, but it clearly is not perfect.

Critics are also concerned that the decentralization of news creation leads to increased abuse and conflicts of interest by reporters. A 2007 article in the Los Angeles Times reported that a citizen reporter who worked as an advertising agent wrote a story in OhmyNews promoting one of his clients. Oh Yeon Ho issued a public apology for publishing the article. When the barriers to becoming a journalist are lowered and no formal training is required, the potential for unethical journalistic behavior may increase.

**CITIZEN REPORTERS**

Proponents of user-generated media would argue it is unfair to characterize OhmyNews’ reporters as predominantly self-serving. For most contributors, OhmyNews is an opportunity to voice valid concerns which previously had no place in the mainstream media environment. Other than the 8.3 percent of OhmyNews reporters who are professional journalists, their reporters come from groups that would not previously have had a voice through traditional media in the public discourse. Some are well-educated professionals. A 2004 survey showed that 14.6 percent of citizen reporters were office workers, 3.5 percent were teachers, and 0.2 percent were lawyers.

However, not all citizen reporters have another role in the public sphere. The cohort of ‘housewife journalists’ represents 1.3 percent of citizen reporters and demonstrates the extent of OhmyNews’ inclusiveness. In 2006, Kim Hyewan, a 45-year-old housewife, was named one of Time magazine’s ‘People of the Year’ in addition to being named Citizen Reporter of the Year by OhmyNews in 2005. Kim often writes about family issues, and one of her most popular pieces was entitled ‘Daddy’s Depressed, Son’s Taking Tests, and I’m Worried.’ “Korean housewives become nameless after marriage,” Kim told the Time reporter in an interview. “They are often just called someone’s wife or someone’s mother. I finally found my name through OhmyNews.”

The percentage of young reporters is also significant. Eighty-three percent of citizen reporters are under the age of forty and a third are students: 2.9 percent in middle school, 4.3 percent in high school, 22.4 percent in college, and 3.8 percent in graduate school. This generation is often called the ‘2030 generation’ because of their ages. According to Jongwoo Han, “OhmyNews was revolutionary in terms of attracting young generations to participate in political issues.” “Through this online activism and journalism [young people] have much more power in poli-
In addition, OhmyNews founder Oh Yeon Ho likes to stress the participation of his own cohort, the politically active ‘386 generation’ who were in their thirties in the 1990s, college-age in the 1980s, and born in the 1960s. After taking part in the protests that brought democracy to Korea in 1987, this group was disappointed that they remained outside the conservative media space. “We really want to be part of forming public opinion,” said Oh in a 2003 interview with the BBC, “All of us, all of the 386 generation are now deployed with the Internet, ready to fight.”

Despite the importance of this generation to OhmyNews, it is important to note that 49 percent of reporters are in the 30 to 50 age cohort, while 47 percent are in the ten to thirty age cohort, indicating that roughly equal numbers of reports came from the 2030 and 386 generations as of 2003 (See Exhibit 3).

This challenges the view that the Internet—in this case OhmyNews—will revolutionize the modern democratic process by opening up access to all citizens. While it is offered to all citizens, only some type of citizens—primarily those who were influencing and directing public opinion before the Internet—take advantage of the medium. In this sense, the impact of the Internet may be more relevant in amplifying pre-existing citizen activity rather than drawing in new participants.

**OHMYNEWS AND POLITICAL ACTIVISM**

Online civic activism in Korea did not begin with OhmyNews; Internet activism was evident in the Defeat Movement of 2000. In preparation for the National Assembly elections in April of that year, more than 450 civic organizations united to form the Citizens Alliance for the 2000 General Election (CAGE). The objective of this group was to prevent incompetent and corrupt politicians from winning seats in the National Assembly. CAGE’s approach was to create blacklists of corrupt candidates with the hope that political parties would not nominate them and that voters would not elect them. Before the election, CAGE released three blacklists that included the names of 135 candidates it considered unfit for office. The placement of a candidate on a blacklist was based on the deliberation of a Committee of One Hundred Voters appointed by CAGE, with the final decisions made by the CAGE leadership.

The progressive Millennium Democratic Party (MDP) took the recommendations of the blacklist into account when nominating candidates to represent the party, while the conservative United Liberal Democrats (ULD) and Grand National Party (GNP) were critical of the effort. However, it seems that even among the conservative parties, the lists had an effect. Among the GNP candidates on the blacklist, a quarter failed to receive their party’s nomination. This figure represents the largest proportion of incumbents denied their party’s nomination in the history of National Assembly elections.

Of the 86 blacklisted candidates who successfully gained their party’s nomination and participated in the general election, only 27 won, indicating an 80 percent success rate for the Defeat movement. According to Eui Hang Shin:

The CAGE blacklisting and defeat campaigns had significant effects on both the nomination processes of candidates by major parties, as well as on the final outcomes of the National Assembly election. ... CAGE campaign signified that citizens were reclaiming the long-lost right to self-determination and securing the basic rights guaranteed in a participatory democracy.

The Defeat Movement (which included regional sub-campaigns and campaigns organized by NGOs) had important digital elements. Several Web sites—including www.ngokorea.org, www.naksun.co.kr, and www.democracy.co.kr—were set up to defeat the blacklisted candidates. Campaign leaders also e-mailed voters the lists. The Defeat Movement appears to be the first digital activist campaign in Korean history, and was largely an elite-led campaign since many of the major actors involved were members of formal NGOs. Two years later, in 2002, digital activism became more of a mass mobilization activity when large numbers of citizens across the country began to use the Internet for political organization.

The event which propelled digital activism to reach a mass...
audience was not political, however. In 2002, the World Cup came to South Korea. This was big news for the soccer-mad country. Festivities were led by the Red Devils, a wildly popular online fan club.\textsuperscript{57} Red Devils used the Internet to disseminate information about the time and location of pep rallies, costumes to be worn, a set list of slogans to be chanted, and songs to be sung by fans. These rallies were similar to ‘flash mobs’\textsuperscript{58} in that they used the Internet to contact and convene large groups in order to take part in a choreographed activity.

According to Tae Gyun Park, the Red Devils rallies were important in the creation of mass awareness of digital activism skills. “I think that the most important thing [in popularizing digital activism] was the Red Devils…. The young people enjoyed joining those groups.”\textsuperscript{59} It is possible that apolitical Red Devils fan organization unintentionally taught digital activism skills to a mass audience made up of Korean soccer fans.

Those fans applied similar organization and information-sharing techniques to the political arena. The traffic incident involving the US military, which resulted in the death of two teenage girls, occurred during the World Cup and led to political protests. Many Red Devils fans, out to rally for their team, joined in anti-American protests. “Most of the young people went there to join the red devil activities at city hall,” reported Tae Gyun Park.\textsuperscript{60} Due to the timing of the accident, the rallies also took on a political subtext.

“When the accident happened last June,” reported a journalist for the Australian newspaper \textit{The Age}, “there was the expected outpouring of grief over the loss of two young lives. But as the months passed, grief turned to anger in a growing wave of anti-US sentiment.”\textsuperscript{61} There were significant protests when an American military court acquitted the two soldiers of negligent homicide on November 19, 2002. Those protests also appear to be an example of an OhmyNews reporter coordinating offline political action.

During this time, OhmyNews provided information that was not being carried in the Korean mainstream press. One point of divergence between conservatives and progressives in Korea is America’s military role in the country. It is widely perceived that older conservatives, who remember the Korean War, support the US military presence as a protection against the North. Younger Koreans, on the other hand are more likely to oppose the troop presence, which they see as an affront to Korean sovereignty that encourages hostility between the North and South. It is possible that conservative dailies did not carry the story of the deaths, in order to prevent the incitement of anti-American sentiment. Whatever their motivations, they ignored a significant news story. OhmyNews did cover the story, and provided information that otherwise would not have been available to Koreans. \textit{The New York Times} reported that, “OhmyNews’ reports of the incident were widely seen as forcing the hand of the mainstream media to pay attention to a story that conservative tradition here suggests they might have been inclined to ignore.”\textsuperscript{62}

Also during that time, the first incidence of OhmyNews mobilization occurred. On November 27, a few hours after watching a documentary about the case on TV, an OhmyNews citizen reporter called Ang.Ma posted a heartfelt call to action on three web sites, including OhmyNews:

It is said that dead men’s souls become fire-flies. Let’s fill downtown with our souls, with the souls of [victims] Mi-seon and Hyo-soon. Let’s become thousands of fire-flies this coming Saturday and Sunday. Let’s sacrifice our private comfortable lives. Please light your candle at your home. Let’s walk in [US embassy district] Gwanghwamum holding a lighted candle…. Let’s fill the Gwanghwamum with our candle light. Let’s put out the American’s violence with our peace.\textsuperscript{63}

Ten thousand people attended the first vigil and the following Saturday similar vigils were held in 17 other Korean cities. The vigils raised the profile of opposition to American military presence in Korea and to the Status of Forces Agreement (SOFA), which allows US troops to be tried by their own courts rather than the Korean legal system, and made anti-Americanism a key campaign issue in the presidential elections. More dramatically than the Red Devils rallies, in which a grassroots group used the Internet to organize, the candlelight vigils appear to be the first time an individual activist had used the Internet for mass mobilization in Korea.
OHMYNEWS AND THE ELECTION OF ROH MOO-HYUN

In 2000, future president Roh Moo-Hyun ran unsuccessfully for a National Assembly seat in Busan. Roh ran largely as a symbolic gesture, in an attempt to decrease regionalism in the country. Even though he lost, many Koreans were inspired by Roh's idealism and continued to talk about the candidate on Roh's official Web site. Some supporters suggested they create a fan club, which was eventually born as Nosamo, an acronym for the phrase 'those who love Roh.'

Nosamo began with 40 members in April 2000. One hundred supporters attended its official launch in a PC bang (internet café) a month later. The meeting was broadcast live on OhmyNews. From the very beginning, the Nosamo activists had an alternative media channel for transmitting information about their candidate to the public.

The exact relationship between OhmyNews and Nosamo remains unclear. Nosamo expert Kim Yong Ho states, “I am now trying to find out the exact relationship between Nosamo and OhmyNews. I guess some Nosamo members worked as reporters and bloggers. Many Nosamo members were OhmyNews readers.” Whatever the relationship, it was informal and unofficial. “Nosamo leaders did not have any formal titles [within] OhmyNews,” confirms Kim Yong Ho.

On New Year’s Day 2001 a school teacher and two students crossed the country on foot in support of Roh, an action meant to symbolize Roh’s ability to unite the country. Nosamo supporters tagged along and OhmyNews covered the event. By the spring of 2001 Nosamo had become a national organization with chapters on 50 Korean university campuses. The leaders of the Millennium Democratic Party (MDP), which had backed Roh in previous elections, began to consider Roh a viable presidential candidate.

Between January and April of 2002, the MDP held a series of three regional primaries to select their presidential candidate, the first open primaries in Korean history. Although Roh came in third in the first primary, he kept moving up and eventually won the third primary and the party’s nomination. Kim Yong Ho argues that Roh’s victory was due in large part to the lobbying by Nosamo members who disseminated pro-Roh materials both online and off.

In addition to distributing campaign materials, Nosamo also provided critical support to Roh’s fundraising efforts. Understanding the importance of micro-donations, they handed out yellow piggy banks for supporters to collect loose change to donate to the Roh campaign. These piggy bank donations made up 10.8 percent of Roh’s $7.9 million campaign war chest.

The extent of Roh’s digital campaign was not limited to the actions of Nosamo. The Internet was central to Roh’s fundraising strategy. Online transfers made up 59.4 percent of all donations, while mobile phone transfers made up 4.8 percent, and an automated telephone service collected 3.9 percent (See Exhibit 4). In addition, Roh’s official web site was regarded by some as effective in engaging voters. According to Han, “His web site has lots of functions where the young can exchange their opinions and leave messages and donate online. All these things were very active.”

The opposition Lee Hoi-Chang, the candidate for the conservative Grand National Party, did not use similar digital tools. “It was a digital versus analogue campaign,” summarizes Professor Han. This dynamic highlighted the differences between the candidates. According to Hong Yung Lee:

Lee Hoi-Chang, 67, a former Supreme Court justice and the leader of the conservative GNP, represented the vested interests of the Korean establishment. Roh Moo-hyun, a human rights lawyer with a colorful career as a labor movement activist, appealed strongly to the alienated, and to economically less-influential groups.

Koreans over the age of 50 tended to be firmly behind Lee, whereas Roh was quite popular with twenty- and thirty-somethings who, although highly educated, felt that their opportunities in Korean society have been shrinking.

Although the MDP leadership was skeptical about Roh, the party itself had a history favorable to digital candidates. According to Kim, there were two major factors which made the MDP more interested in and responsive to Internet activism. First, the MDP was founded in 2000 explicitly in order to recruit younger political hopefuls, a demographic group typically more interested in information technology (IT) than politicians of the older generation. Second, President Kim Dae-Jung, who was also the president of the MDP, emphasized IT to boost the economy and spent a large portion of the national budget on promotion of the IT industry.
The Korean election took place on December 19, 2002. On December 18, presidential candidate Roh Mo-Hyun was dealt a terrible blow when a critical supporter, Chung Mong-Joon, withdrew his support. With only a few hours until the polls opened, Roh supporters took to the Internet, posting their opinions on various Web sites and debating how to react. OhmyNews seems to have been the center of this online deliberation, and updated their coverage of the event every thirty minutes throughout the night.

In addition to acting as a space for deliberation, OhmyNews also appears to have provided an alternative news source to the mainstream media. When Chung withdrew his support the major newspapers jumped on the story, asking in their headlines, “Mr. Chung withdrew his support, will you?” In response, Roh supporters posted counter-arguments on OhmyNews.

Turn-out was the key to the election. As of 3 p.m. on Election Day, the turnout stood at 54.3 percent, compared with 62.3 percent at the same time during the presidential election in 1997.74 This low turn-out hurt Roh, because it was young voters, who tended to be more progressive and more likely to support Roh, who were not going to the polls. Roh supporters sent messages to friends they though might not vote at all. ‘Don’t treat today just as a day off to spend shopping or at home,’ one message implored.75

While a small number of Koreans actively called and e-mailed to turn out the vote, the reaction of the citizens who responded to those calls and emails were equally important. If only digital activists, or ‘netizens,’ had voted for Roh, he would not have won. The ability of Roh supporters to turn out large numbers of voters was critical to his election victory. While it is impossible to prove the causation between the Red Devils rallies, candlelight vigils, and the 2002 Presidential election, these events shared an element of digital organization and information sharing. Because of their highly wired society, a substantial proportion of Koreans were users of the digital tools utilized for organization and communication during those events, including SMS messages, Web sites, and online forums. However, turning out the vote through networks is not a new phenomenon. The combination of classic campaign organization techniques, combined with creative use of online technologies by Roh supporters, may best explain what happened in the Presidential election.

In the late morning of Election Day, millions of e-mails and text messages were sent by Roh supporters urging their friends and colleagues to go out and vote for Roh. By early morning the tide had changed as Roh began to climb in the polls while Lee fell. By 3 p.m. Roh was clearly in the lead and eventually won the day with 48.9 percent of the vote compared to Lee’s 46.8 percent (See Exhibit 5).76 While this is significant, it is also possible that younger voters may simply have turned out later than older voters, who tend to vote earlier in many countries. It is also possible that the majority of Lee supporters simply voted earlier, explaining the gradual gains by Roh throughout the day.

It is also clear that Internet activism was not the major issue in the election. The issues that were most important in the election were regionalism, candidate scandals and anti-American sentiment. That anti-Americanism, as expressed at the vigils for the murdered schoolgirls was extremely important. According to Professor Park, an expert on US-Korea relations, “That made Roh Moo Hyun the president. People considered him a symbol of anti-Americanism. He said he didn’t feel it was necessary to visit US.”77 Regionalism and candidate political scandals were also important in deciding the outcome of the election. As Professor Kim explains, “Regionalism was the predominant factor in voter’s choice, while scandals of Lee Hoi-Chang [were also] statistically significant.”78

**RECENT DEVELOPMENTS FOR OHMYNEWS**

Although it was revolutionary when OhmyNews introduced a user-driven site in 2000, it is common in Korea today. As OhmyNews founder Oh Yeon Ho states, “Since our phenomenal success back in 2002, virtually every news site copied our interactive news model. OhmyNews 1.0 is now the industry standard.”79 The competition may now be catching up with OhmyNews.

According the OhmyNews Communications Director Jean Min, OhmyNews’ primary competitors are other online news portals (included the web sites of the top print dailies) and general interest user-generated content sites.80 Within this latter category, Naver.com and Daum are the most prominent competitors. Naver.com, Korea’s top-ranked web portal, began a service in October of 2002 called Knowledge IN which provides a forum for users to answer each other’s questions on a variety of topics and...
make recommendations to each other about good places to shop and dine. Naver also hosts a number of popular political blogs. Daum, the second most visited Korean portal, has several spaces that host user-generated content, including the Daum Blog blogging platform, TVPot video service (similar to YouTube), and DaumCafé forums (similar to Yahoo! Groups).

Other than the user-generated content portals, another source of competition is Internet news sites dedicated to delivering alternative viewpoints not covered by mainstream media. These sites are founded upon similar ideological grounds as OhmyNews in that they aim to enrich public debate by incorporating marginalized or ignored voices. Among such sites are Pressian and Daily Seoprise. Pressian, the combination of words “Press+Internet Alternative News,” was founded one year before OhmyNews in 2001. The major difference between the sites is that Pressian relies on professionally trained reporters rather than citizen reporters. Moreover, their content consists largely of counter-arguments and viewpoints in opposition to the three mainstream Korean newspapers. Because of this structure, Pressian targets a slightly different readership. Their audience is made up of loyal news junkies that read in-depth, critical analysis—usually educated elites in the late 40s to 50s. While Pressian does not provide exact numbers on readership demographics, it is possible that it is not in direct competition with OhmyNews, as they target a different niche audience.

The media landscape has changed too. OhmyNews, formerly a proud outsider and ‘guerrilla’ organization, is now arguably closer to the President than any other news outlet. This coziness has lead to serious criticism of OhmyNews. According journalism professor Yoon Young-Chul, a consistent critic of the OhmyNews, “It tends to be very supportive of Roh and doesn’t reflect the point of view of others.” According to Veale writing in Foreign Policy, the site is reluctant to report on Roh’s failings, particularly high youth unemployment, the lagging economy, and a lack of progress in diplomacy with North Korea. Worse still, in the summer of 2006, OhmyNews took a $10,000 grant from a government fund for cash-strapped media, in spite of OhmyNews’ claim that it had been operating in the black for three years. No matter the fiscal situation of OhmyNews, it was a risky ethical move to accept money from the very government it was supposed to impartially examine.

As the need to accept the government grant indicates, the OhmyNews business model appears unstable. Business Week reported that in its sixth year of its existence OhmyNews still had difficulty making ends meet and would find it difficult to cover its costs due to fierce competition for advertising from other Korean portals. “The company remains long on idealism,” noted journalist Moon Ihlwan, “but short on a workable business strategy.”

Oh Yeon Ho seems more concerned with citizen journalism than profits. “I want OhmyNews to be sustainable,” Oh says, “but my ambition is to spread citizen journalism around the world, not to make money.” It is perhaps not surprising, then, that OhmyNews continues to struggle with sustainability. The inability to establish a successful business model is an issue not only for OhmyNews Korea but also for citizen journalism sites around the world. OhmyNews is often regarded, at least in many Western circles, as the model to emulate in the field of user-generated journalism. Just as its success inspired a myriad of imitators, its failure could discourage the creation of future sites unless alternative models are developed.

In addition, the attempts by OhmyNews to expand into foreign markets have to date been unsuccessful. In February 2006 OhmyNews received an $11 million investment from Softbank, a Japanese telecommunications and media corporation. The bulk of the loan was provided to start a Japanese version of OhmyNews, which launched in the summer of that year.

OhmyNews Japan has not thrived. One reason is competition. Two other Japanese user-generated journalism sites, PJ News and JanJan, are also vying for citizen reporters and readers. Yet this is not the whole story. While OhmyNews Korea currently has more than 40,000 citizen reporters, the Japanese sites have only a few thousand between them and the number of active writers is estimated in tens, not thousands.

An international version of OhmyNews, launched in 2004, has not had much more luck. According to OhmyNews Communications Director Jean Min, the site currently claims 3,000 citizen reporters drawn from 100 countries, far fewer than OhmyNews Korea at its three year mark despite the far smaller pool from which it draws its participants.

OhmyNews is not alone in finding it difficult to export its model. There is arguably no other citizen journalism site in the world that has matched the success of the Korean version of OhmyNews. The French site AgoraVox, the most successful citizen journalism site after OhmyNews, has just
under 20,000 reporters, but its recently launched English version has only 965. In June of 2007, BackFence, the most prominent American citizen journalism site, specializing in hyper-local reporting, announced that it would shut down due to lack of revenue. Of course, the financial problems of mainstream media outlets highlight the difficulty of turning a profit in journalism generally.

CONCLUSION
OhmyNews is a pioneer in online journalism that allows users to generate, share, and debate news content. It is unique in its initial success in attracting a huge number of citizen reports and readers, and for its use of some traditional media techniques, including the use of professional news editors. OhmyNews has created an alternative to the conservative South Korean newspapers. Critically, the site also served as a platform for mobilizing voters during the 2002 Presidential campaign. The Internet, ultimately, is just a tool. It has been used by political parties and interest groups during campaigns with varying degrees of success. In the 2002 South Korean Presidential election, supporters of the Roh campaign used the Internet to turn out the vote for a minority party that subsequently won the Presidential election. It is not obvious, however, that the opposition will always use the Internet more successfully than incumbents. It is also important to note that there were many factors that determined the outcome in the election, and OhmyNews was just one of many that led to Roh’s victory.

This case study raises a number of questions for further research. Does the Internet change the balance of power among political parties and interest groups? Are youth, who are online in greater numbers than older demographics, more easily mobilized through and by the Internet? If yes, then will youth, who are across countries less likely to vote and engage in politics than their older counterparts, enjoy greater political enfranchisement as Internet use spreads? Finally, OhmyNews appears to constitute a new hybrid institution that spans areas covered previously by civic organizations and media groups. Will this create new patterns for both media and civic engagement if more participatory media sites emerge?

ENDNOTES
1 Citizen journalism, user-generated media/journalism, and participatory media/journalism are used interchangeably throughout this paper, although there is some debate around the most appropriate term to describe the model in which users create news content and share it online.

2 Dan Gillmor. We the Media: Grassroots Journalism by the People, for the People. (Sebastopol: O'Reilly Media, 2006), 125.


7 Ibid., 29.


9 Gillmor. We the Media, 93.

10 Heekyung Hellen Kim, Interview by Mary Joyce, 24 September 2007, Cambridge, MA.

11 Oh, “The Revolt of 727 News Guerrillas.”


13 This exclusion may have been personal as well as professional. MontMal (also spelled Malh) journalists were fired from the mainstream dailies Dong-A Ilbo and Jounil Ilbo in the seventies and eighties for advocating freedom of the press.


16 Ibid.

17 Heekyung Hellen Kim, Interview.


21 Yu. “OhmyNews Makes every Citizen a Reporter.”


25 Broadband is defined in Korea as 20 megabits per second.

An article published 18 June 2007 in the LA Times recently contradicted this statement, stating that OhmyNews had lost money in fiscal year 2006 despite ad revenue of $6 million.

Communications Director Jean Min offers a different interpretation of their financial situation. The company was profitable from 2003 to 2005 but then went into debt while creating the new 2.0 version of the site and has not turned a profit since.

EXHIBIT 1: KOREAN INTERNET USERS

Sources: Korean Internet Statistics Information System (ISIS), International Telecommunication Union

EXHIBIT 1: KOREAN INTERNET USERS

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Korean Internet Users</th>
</tr>
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<tbody>
<tr>
<td>1995</td>
<td>366000</td>
</tr>
<tr>
<td>1996</td>
<td>731000</td>
</tr>
<tr>
<td>1997</td>
<td>1634000</td>
</tr>
<tr>
<td>1998</td>
<td>3103000</td>
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<tr>
<td>1999</td>
<td>9430000</td>
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<td>2000</td>
<td>19040000</td>
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<td>24380000</td>
</tr>
<tr>
<td>2002</td>
<td>26270000</td>
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<tr>
<td>2003</td>
<td>29220000</td>
</tr>
<tr>
<td>2004</td>
<td>31580000</td>
</tr>
<tr>
<td>2005</td>
<td>33010000</td>
</tr>
<tr>
<td>2006</td>
<td>34120000</td>
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EXHIBIT 2: OHMYNEWS’ CITIZEN REPORTERS

<table>
<thead>
<tr>
<th>Date</th>
<th>Citizen Reporters (approx.)</th>
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<tbody>
<tr>
<td>Feb. 00</td>
<td>727</td>
</tr>
<tr>
<td>Jul. 00</td>
<td>3333</td>
</tr>
<tr>
<td>Sep. 00</td>
<td>5000</td>
</tr>
<tr>
<td>Dec. 00</td>
<td>7550</td>
</tr>
<tr>
<td>Mar. 01</td>
<td>10,000</td>
</tr>
<tr>
<td>May 01</td>
<td>11,666</td>
</tr>
<tr>
<td>Oct. 01</td>
<td>14,583</td>
</tr>
<tr>
<td>Nov. 01</td>
<td>15,000</td>
</tr>
<tr>
<td>Mar. 02</td>
<td>16,666</td>
</tr>
<tr>
<td>Aug. 02</td>
<td>19,583</td>
</tr>
<tr>
<td>Oct. 02</td>
<td>20,000</td>
</tr>
<tr>
<td>Jan. 03</td>
<td>21,666</td>
</tr>
<tr>
<td>Mar. 03</td>
<td>25,000</td>
</tr>
<tr>
<td>Jun. 03</td>
<td>27,083</td>
</tr>
<tr>
<td>Nov. 03</td>
<td>30,000</td>
</tr>
<tr>
<td>Apr. 04</td>
<td>33,000</td>
</tr>
<tr>
<td>Sep. 04</td>
<td>35,500</td>
</tr>
<tr>
<td>Jan. 05</td>
<td>36,000</td>
</tr>
<tr>
<td>Feb. 05</td>
<td>36,400</td>
</tr>
<tr>
<td>May 05</td>
<td>38,000</td>
</tr>
<tr>
<td>Jul. 05</td>
<td>38,614</td>
</tr>
<tr>
<td>Dec. 05</td>
<td>40,149</td>
</tr>
<tr>
<td>May 06</td>
<td>42,000</td>
</tr>
</tbody>
</table>

Sources: OhmyNews, CNN, Time, BusinessWeek
EXHIBIT 3: CITIZEN REPORTERS BY AGE

<table>
<thead>
<tr>
<th>Age</th>
<th>Percentage of Citizen Reporters</th>
</tr>
</thead>
<tbody>
<tr>
<td>10-19</td>
<td>8.5percent</td>
</tr>
<tr>
<td>20-29</td>
<td>38.4percent</td>
</tr>
<tr>
<td>30-39</td>
<td>34.5percent</td>
</tr>
<tr>
<td>40-49</td>
<td>14.4percent</td>
</tr>
<tr>
<td>50-59</td>
<td>3.2percent</td>
</tr>
<tr>
<td>60+</td>
<td>1percent</td>
</tr>
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</table>

### EXHIBIT 4: DONATIONS TO ROH MOO-HYUN’S 2002 PRESIDENTIAL CAMPAIGN

<table>
<thead>
<tr>
<th>Type of Donation</th>
<th>Percentage of Total Donations</th>
<th>Dollar Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Credit Card</td>
<td>15.7 percent</td>
<td>$1,104,263.00</td>
</tr>
<tr>
<td>Mobile Phone</td>
<td>9.9 percent</td>
<td>$288,603.00</td>
</tr>
<tr>
<td>ARS</td>
<td>10.4 percent</td>
<td>$176,200.00</td>
</tr>
<tr>
<td>Automated Phone Service (Voice Recognition)</td>
<td>49.9 percent</td>
<td>$3,593,097.00</td>
</tr>
<tr>
<td>Piggy Bank</td>
<td>10.8 percent</td>
<td>$631,712.00</td>
</tr>
<tr>
<td>Hope Ticket</td>
<td>3.4 percent</td>
<td>$256,965.00</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>100.1 percent</td>
<td><strong>$6,052,503.00</strong></td>
</tr>
</tbody>
</table>

EXHIBIT 5: HOUR-BY-HOUR ELECTION RESULTS

source: KBS Media Research Exit Polls

EXHIBIT 5: HOUR-BY-HOUR ELECTION RESULTS
(PERCENTAGE DIFFERENTIATION)

<table>
<thead>
<tr>
<th>Time</th>
<th>Lee</th>
<th>Roh</th>
</tr>
</thead>
<tbody>
<tr>
<td>6-9 a.m.</td>
<td>2.5</td>
<td>0.7</td>
</tr>
<tr>
<td>9-11 a.m.</td>
<td>2.6</td>
<td>0.6</td>
</tr>
<tr>
<td>11 a.m.-1 p.m.</td>
<td>1.9</td>
<td>0.9</td>
</tr>
<tr>
<td>1-3 p.m.</td>
<td>0.8</td>
<td>1.8</td>
</tr>
<tr>
<td>3-4 p.m.</td>
<td>0.3</td>
<td>2.1</td>
</tr>
<tr>
<td>4-5 p.m.</td>
<td>0</td>
<td>2.3</td>
</tr>
</tbody>
</table>

HOUR-BY-HOUR ELECTION RESULTS
(FULL DATA)

<table>
<thead>
<tr>
<th>Time</th>
<th>Lee</th>
<th>Roh</th>
</tr>
</thead>
<tbody>
<tr>
<td>6-9 a.m.</td>
<td>49.3</td>
<td>47.5</td>
</tr>
<tr>
<td>9-11 a.m.</td>
<td>49.4</td>
<td>47.4</td>
</tr>
<tr>
<td>11 a.m.-1 p.m.</td>
<td>48.7</td>
<td>47.7</td>
</tr>
<tr>
<td>1-3 p.m.</td>
<td>47.6</td>
<td>48.6</td>
</tr>
<tr>
<td>3-4 p.m.</td>
<td>47.1</td>
<td>48.9</td>
</tr>
<tr>
<td>4-5 p.m.</td>
<td>46.8</td>
<td>49.1</td>
</tr>
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