

## Paradigm Shift in How People Interact with Media

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**URL** <http://infographics.chosun.com/>

**ABSTRACT** Today’s newsreaders seek to effectively extract accurate and trustworthy information from the overwhelming flood of available media. Various mass media organizations have contributed considerable effort to meet these readers’ expectations. Such effort has also created a uniquely competitive marketing endeavor to find new methods of presentation. After over two years of thorough preparations and strategic trials focused on meeting readers’ needs, *Chosun.com* officially launched *InfoGraphics* to provide highly compelling presentations of news through the paradigm of information visualization (FIGURE 1). *Chosun.com* is one of the leading news websites in South Korea; it is affiliated with *The Chosun Ilbo* (Korea Daily News), the largest and most read newspaper in South Korea (FIGURE 2, next page).

The term *InfoGraphics*, as used by *Chosun.com*, seeks to combine the following three media aspects: *information*, *graphics*, and *news*. The purpose of *InfoGraphics* is to provide the reader with the experience of news within a deeper context of related information. This approach allows *Chosun.com*’s *InfoGraphics* to stand out distinctively among other vendors who only provide traditional illustrations and graphs as a means for readers to view information in an enhanced manner.

One of the most beneficial characteristics of *Chosun.com*’s *InfoGraphics* is that our graphic works often combine both information design and interactive design to allow readers to “experience” news or information. Such an approach helps our readers stay more engaged—and even entertained—while exploring and viewing various news subjects and other significant social issues through graphics and interactions. The storytelling technique of having readers “view” and “participate” also helps us better convey particular topics that may be difficult for readers to comprehend if only presented verbally. (Additionally, our unique model of presenting news with visualization and interactivity has helped us stay competitive among other news media vendors offering the similar services).



FIGURE 1: *InfoGraphics, Chosun.com*: three aspects of media are composed together, these include information, graphics, and news.

Presenting news content through information graphics enhances the storytelling process, however, our objective is to go beyond this to present more highly sophisticated news content. Creating quality information graphics requires a more thorough analyses and reconstruction of content. The process entails the comprehensive collection of the core information, as well as its contextual information and related social issues. Therefore, when we present our information graphics, we need to synchronize the core information with rich contextual issues. As a result, we have learned that our works have gained more credibility and dissemination through the several case studies that we conducted respecting reader responses.

### INFOGRAPHICS WITHIN THE MEDIA MARKET

Though faced with an overwhelming flood of information, today’s readers seek to assimilate news rapidly from a pool of knowledge that must be easy to access and understand. Mass media organizations are responding to such needs by competitively offering a wide variety of services that seek to do this while assuring the most accurate information. Making media accessible, intelligible, and accurate often means going beyond text; in order to meet readers’ expectations, photos, videos, and other enhancements are used in conjunction with written words. Infographics, particularly if optimized for online use, offer readily accessible in-depth information through the rich contextualizing of data. The compound word infographics well explains a rich idea of the visual and informational: the practice of making infographics has been gaining in popularity over the past few years now. From subway and travel

maps, to exhibition hall layouts, infographics can be found throughout social environments. In the world of media, infographics were first adopted by print newspapers as visual aids supporting text articles; they continue to benefit a readers' understanding of content. Readers, in general, have been found to gain a deeper insight and show a heightened interest in articles when the text is supplemented with graphic displays. The rapid spread of tablet PCs and smartphones has also increased people's interest in visual information—advances in technology have given us more interactive and more innovative features than ever before. Assuming heightened readers' expectations and the technology in today's media environment to support it, the accelerated development and spread of infographics is inevitable.

**INFOGRAPHICS AND CHOSUN.COM**

In 1995, the online news website *Chosun.com* began offering *Chosun Ilbo's* print articles in addition to real-time issue-based articles and other supporting content (FIGURE 3). The credibility of the site, as well as other factors, has led to a wide readership, *Chosun.com* is currently Korea's number one news website. Its print-based twin, *Chosun Ilbo* was established in 1920 and over the past 92 years of service, the print newspaper has continued to maintain its position as a reliable news source, it remains Korea's premier news outlet. While *Chosun Ilbo* and *Chosun.com* maintained readers' trust by offering quality news articles, competition from other news vendors has only grown stronger. Meanwhile, with combined the rise of various social issues and rapid advances in technology, readers today are increasingly being exposed to gossip news and sensationalism. As such, backed by the strength of its reader's trust, *Chosun.com* analyzed the current media environment and embarked on a mission to bring about positive changes by offering quality news and information that engage and entertain the reader. By going beyond simply relaying information, *Chosun.com's* initiative paved a new path that opened communication between the reader and vendor. In 2008, a project team was formed to analyze infographics, the optimum objective being for online purposes. After thorough preparations and planning, a wide range of information graphics of diverse content were created and *Chosun.com* was officially able to offer its *InfoGraphics* service in September, 2010.

This kind of approach has already been in wide use by studios and major news outlets overseas for several years now, whereas in Korea, there were only one or two media outlets that offered such services at the time. It was challenging to invest in initial staffing and to create a



FIGURE 2: Print newspaper Chosun Ilbo



FIGURE 3: Online news website Chosun.com

distinctive news format being a relatively new concept for Korean readers. However, *Chosun.com* firmly believed that the market for infographics would only grow bigger and continued to dedicate resources to the project. Such determination has enabled *Chosun.com* to lead the infographics market in Korea today.

As previously noted, the general term infographics is a combination of the words *information* and *graphics*, but our objective was to add the concept of news: *InfoGraphics* becomes a combination of the words *information*, *graphic* and *news*. By offering news in the form of infographics, *Chosun.com* is able to differentiate itself from and gain advantage over other news websites. With this integration of multimedia features, it has also increased reader's understanding and reader interaction, opening a wider path to communication with the reader.

**A NEW DIRECTION IN NEWS DELIVERY**

Typically raw data is not yet valuable enough to be considered quality information. In that sense, the very fact that infographics reconstruct data into easily accessible information holds merit for this kind of presentation as being a more ideal news format method. When news-imbued infographics is used to provide content on major social issues, the influence on readers is much stronger

than regular infographics. Through news-imbued infographics readers are able to gain in-depth insights into a pressing issue, while media vendors are able to reach a wider audience. Although reader awareness of this kind of infographic is currently still low, *Chosun.com* is confident that a gradual paradigm shift in news formats will occur through repeated publications of news articles in this enhanced form. In fact, *Chosun.com's* *InfoGraphics* is playing a lead role in bringing about such changes in Korea. This is evident in the following examples of information graphics published by *Chosun.com*, which covered major social issues, and in the readers' response to those articles.

The example shown in FIGURE 4 is an article published in October 2011 on North Korea's Kim Jong-il before his death. His life history was laid out through a series of photos, while the lower part of the infographic illustrated changes in Kim Jong-il's physical appearance based on his health by using photos with short descriptions that were taken from a previously published text article. When news of his death traveled around the world two months later, the article was swiftly updated and published under the revised title of 'The Stages of Life That Cannot Be Avoided by Even the Most Powerful...North's Kim Jong-il, 1941-2011.' Because we were able to respond faster than most other news vendors, this article was able to reach a wider audience and, as a result, attracted a high level of interest from other news media vendors as well.

Similarly, the infographic article as seen in FIGURE 5 was published ahead of Korea's 2012 National Assembly general election. The wide range of benefits that National Assembly members receive after being elected were presented in a visually compelling and easy-to-understand manner and published under the title "Each National Assembly Member Spends ₩600 million Government Money Every Year." It was a good example of an issue-based news item in the form of information graphics that creates "buzz" by covering an issue of national interest in a compelling manner. Another new format is information graphics that reconstruct print articles that were previously published as special feature series in *Chosun Ilbo*.

The article in FIGURE 6 highlights how today's capitalism allows successful businesses and people to achieve even greater success while offering support to companies and individuals that fall behind. It focuses on how it's a more compassionate version of the old capitalism, i.e., 'capitalism 4.0.' Also, by calling attention to one of the key elements of capitalism 4.0, which is the culture of donation, the article aims to create a better society for all. It's an example of how a print feature series was reconstructed into a single-page *InfoGraphics*. This type of information graphics that combines previously published print and

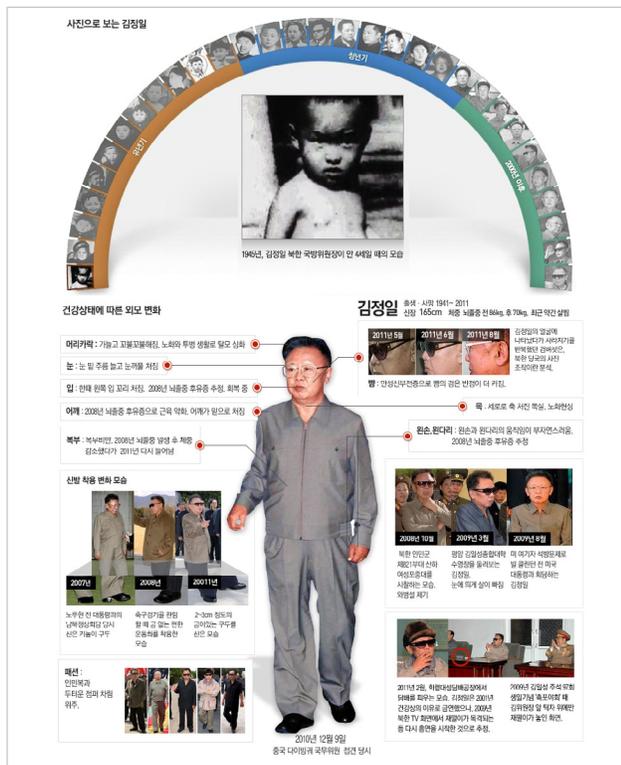


FIGURE 4: Kim Jong-il before his death, the infographic presents a brief timeline of history and health.

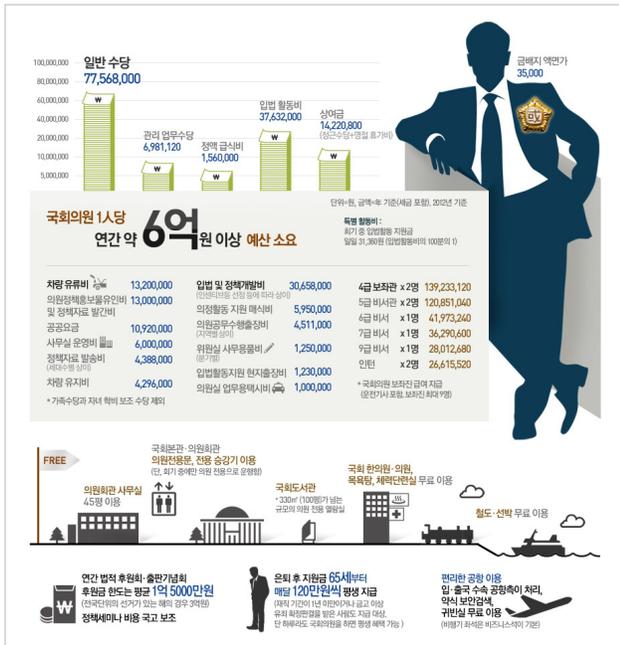


FIGURE 5: Korea's 2012 National Assembly general election, this infographic presents the extensive benefits enjoyed by its members.

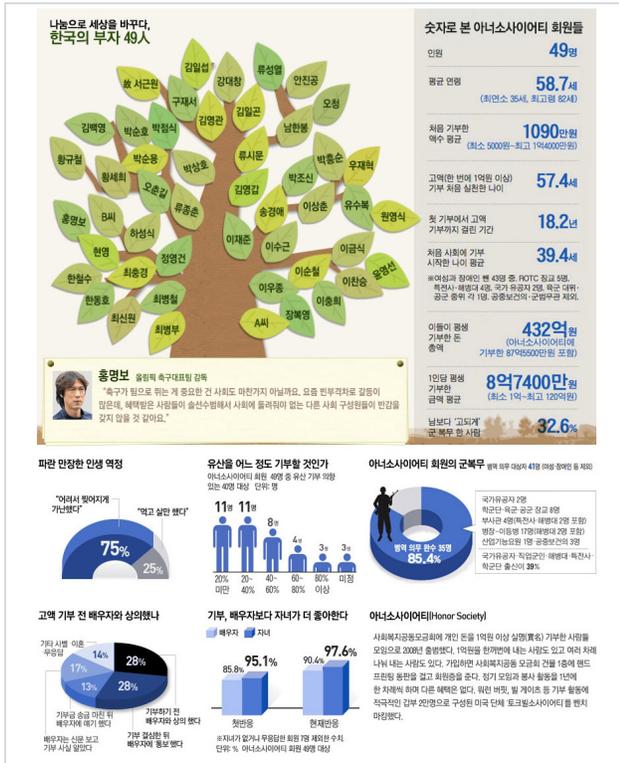


FIGURE 6: 'Capitalism 4.0,' a graphic exposing how social involvement is a benefit to business and recipients.

online articles while offering more contextual information to readers takes up a significant portion of *Chosun.com's InfoGraphics* content.

**OPTIMIZED NEWS AND INFORMATION THROUGH MULTIMEDIA FEATURES**

When covering in-depth news and information on a major issue, it is important that the extensive amount of data is reconstructed into valuable information and relayed to readers in a way that can be fully ascertained and easily understood. Only then can we say that the news vendor has sufficiently carried out its responsibilities. In order to provide quality information, *Chosun.com's InfoGraphics* uses a wide range of online-optimized multimedia features. We realized from the start that simply laying out a lot of information has its limits, therefore, the goal was to incorporate multimedia features that include flash, videos, illustrations, and 3D features. The multimedia components to be used in the article were carefully decided upon in the initial planning stages. An example of this process can be found in the information graphics in FIGURE 7 (next page) that was published in 2010 under the title 'Analysis of the Different Grips and Pitches Used by Pitchers'. Baseball is a hugely popular sport in Korea. And while every sport has its own rules and technical terms that are sometimes difficult to understand, baseball has a particularly rich jargon. That is why it is not easy for beginner fans to appreciate the nuances of baseball and fully gain the pleasure of watching the game. This information graphics on baseball was planned, created and published in 2010 in order to help those fans understand the sport better. First, the information graphics explained the different grips and pitches used by pitchers, since this was where some of the most difficult terms were used. The different pitching style, simulations of the view from the batter's box, elevation views of the height of the thrown ball, where it falls, ball speed, and the physics of the ball's movement were all explained in an easy-to-understand manner with the help of various multimedia components. The eight pitching styles that Korean professional baseball pitchers used the most were chosen and laid out in the information graphics allowing readers to learn each one by interacting with the graphics. Baseball fans, who had previously only been able to watch pitching on TV, or even from the stands, were now able to experience the speed and movement of the ball from the pitcher's perspective through simulations. 3D graphics at the top right corner gave realistic demonstrations of how pitchers held the ball for each type of pitch. Also, examples of pitchers famous for each of the styles were given, this further enhanced baseball fans' understanding of the sport. Such complex



FIGURE 7: Analysis of the pitch: how the varied grip produces different kinds of pitching in the game of baseball.

and detailed knowledge would not be easy to explain by using just words. Even if it was explained extremely well in words, it could lose readers' interest and thereby fail to make the readers fully understand. This particular information graphics was shared rapidly throughout various online baseball communities and personal blogs with the assessment that it was highly instructive.

Another good example of incorporating multimedia features is the interactive article in FIGURE 8 'How 3D TV Displays Work.' In 2009, the 3D movie 'Avatar' sparked a 3D wave in the TV market in Korea. Samsung and LG, Korea's leading electronics companies, competitively released and marketed 3D TVs, employing different 3D TV technologies. Samsung adopted passive-polarized glasses while LG chose active-shutter glasses. This is fairly straightforward information for readers already knowledgeable about 3D technology, but for those who had not been so interested, it was a very confusing subject. To offer a clearer explanation, we used easy-to-understand graphics and animation effects that showed developments in the technology over time. And before describing how 3D TVs work, we used graphics to show how humans recognize three dimensional objects versus 3D images. Then, when readers clicked on the second tab at the top of

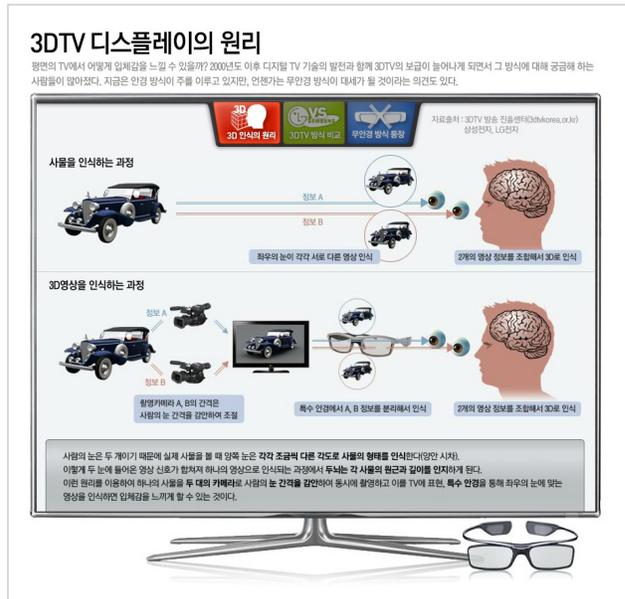


FIGURE 8: How differing technologies for television displays: passive-polarized versus active-shutter glass.

the interactive article, they were given a comparison of the market shares in the Korean 3D TV market between the two leading companies (Samsung and LG). The section linked to the third tab explained 3D TV viewing methods that are scheduled to be released in the future. In addition to such articles featuring a wide range of multimedia components, we developed information graphics made with video. As such, in delivering content and producing articles, Chosun.com continues to explore methods to enhance our objective of state-of-the art infographics.

**PERSONALIZING INFORMATION THROUGH READER PARTICIPATION**

There are many different ways for readers to comprehend information, one of them is to personalize information by actively participating in, and experiencing the content. Such active participation allows readers to stay engaged and, where appropriate, entertained. Typically articles that use this method are called interactive. In Korea, the term *interactive* is defined as "a program that allows the user to input data or commands (Doopedia, <http://100.naver.com>)." Recently, interactive features have been widely employed by social networking sites and online ads, and, by actively engaging readers in the ad or the content, have triggered highly positive responses. The biggest benefit of interactive features is that the relationship between the vendor and reader is two-way instead of one way. That means, the vendor can communicate better with readers.

Chosun.com's InfoGraphics has carried out various

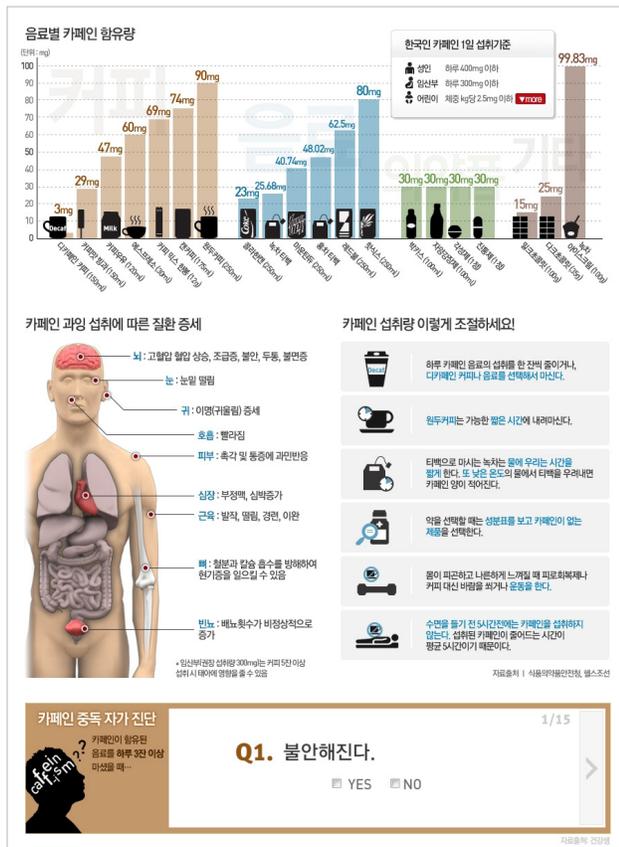


FIGURE 9: Monitoring caffeine intake toward better health: the danger of excessive caffeine.

approaches in communicating with readers by fully capitalizing on the benefits of interactive features. The information graphics in FIGURE 9 was created to advise readers that they should monitor and control their caffeine intake; it argues that, although we can gain temporary relief from tiredness and drowsiness by consuming caffeine, when not taken with care, we can easily exceed a reasonable daily intake of caffeine through its habitual use. Readers were first given a graph of caffeine content by drink types followed by a description of the health issues that could arise from consuming too much caffeine. The interactive feature that sets this article apart from other types of articles was where readers were able to administer self-tests on whether they were addicted to caffeine. By getting a hands-on experience, readers were able to personalize the information.

A similar example can be seen in FIGURE 10 where different types of tea were classified by level of fermentation and their timing for picking. They were then grouped accordingly in an easy-to-understand manner allowing readers to view the information visually. The article described how black tea, green tea, and pu'erh tea, some

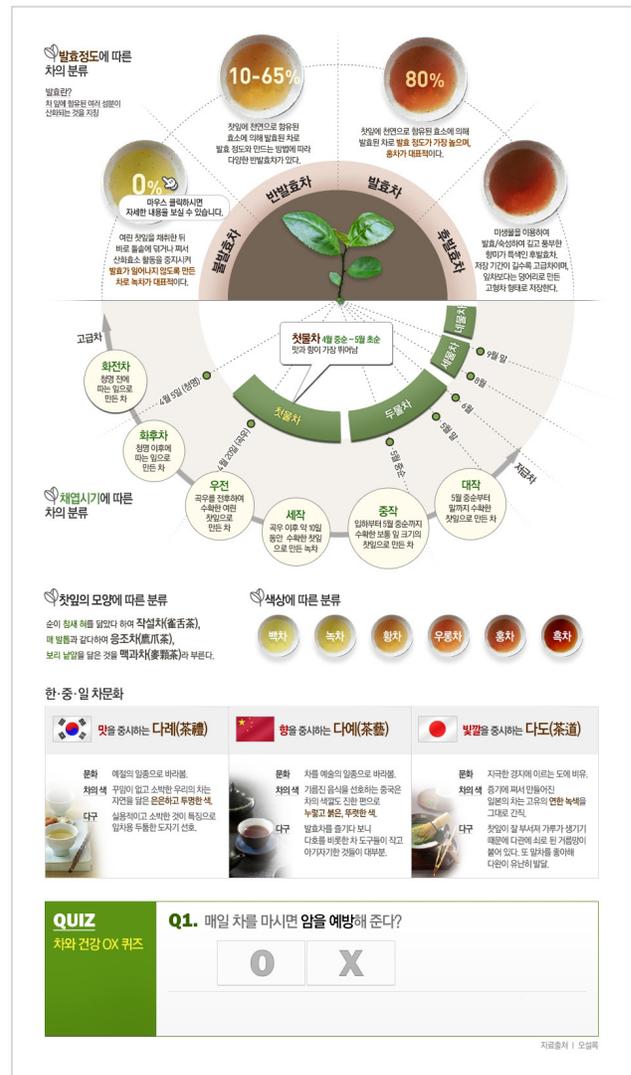


FIGURE 10: This infographic proxided an in-depth comparison of tea based on fermentation and other factors.

of the most widely enjoyed tea types, are classified by level of fermentation. Additional information was given on the different tea cultures among the countries of China, Japan, and South Korea. Like the previous article, this information graphics also included an interactive feature where readers could do a true or false quiz to test their knowledge on teas. By doing so, readers were able to get a better grasp of the given information. Interactive features have the advantage of being able to convey large amounts of information, allowing readers to personalize the newly gained knowledge. Also, by actively gaining access to the information, readers are able to stay engaged and entertained than when given information in varied formats. It is through such engaging activities and reader participation that readers are able to easily comprehend

the information and retain the knowledge longer. The significance of interactive features grows substantially in today's media environment as they continue to engage readers with out-of-the-box ideas.

#### HOW CHOSUN.COM'S INFOGRAPHICS ARE PRODUCED

*Chosun.com's InfoGraphics* invests the largest amount of time in the verification phase of the process; in this phase selected news items, collected data, and resources are thoroughly examined. Though it is true that this step is integral to all news articles, it is especially important for the credibility of news organizations when creating infographics. As opposed to text articles covering events or issues, infographics incorporate volumes of contextual information, meaning that they rely on a wide range of data based on facts and accuracy. During this phase, even if the subject selected for the next information graphics during the initial planning meetings is a highly impressive one, if the sources or background information needed for the article are found to be unreliable, the article does not make it to the press. Data used as sources are generally obtained from credible organizations, expert groups, or technical publications and reconstructed into information. The following are the steps for how articles are made based on each staff member's role at *Chosun.com's InfoGraphics*.

- News Item Selection: Timely news items are selected
- Background Data Research & Compilation: Credible data from reliable organizations are researched and data in various forms including photos, images, graphics are gathered
- Information Grouping: Data goes through basic processing to be classified by clearly-defined criteria to increase reader understanding
- UI Planning: Decisions are made to create a reader-friendly UI (User Interface), that include choosing the right multimedia components and whether to include interactive features
- UI Design: A framework that conveys information in the most accessible manner is designed based on article proposal
- Addition of Interactive Features: Appropriate components such as Flash, 3D and motion graphics are added
- Infographic published

Each of these steps are divided into the areas of planning, 3D graphics, motion graphics, flash, and user interaction design with each phase being carried out by experts in their relevant areas. We, however, have the entire *InfoGraphics* staff participate in the research and planning stages, which precede the flash and interactive feature stages. By having the whole team collaborate on information analysis and discussion of the layout (instead of having each staff member focus only on their respective areas) we are able to produce an end product that is consistently of higher quality content. Good infographics cannot be created with only superior design abilities and technical skills. The ability to fully and completely understand the vast amount of information as well as to set up clearly defined goals and plans in order to produce an optimized user interface design is required. To help readers understand information, staff members in charge must completely understand the information themselves.

#### THE PRESENT AND FUTURE OF INFOGRAPHICS

The response to *Chosun.com's InfoGraphics* in Korea is highly positive on many levels. This was the result of several factors including: efforts of a news media trying out an innovative news format, planning and production while continuously striving for higher quality, speedy responses to hot issues, and delivery of reliable in-depth information. The response to these efforts were measured through website traffic, which has only continued to steadily rise. Additionally, readers' comments, the frequency of *Chosun.com's* Facebook page being shared and 'liked', and reviews of *Chosun.com's InfoGraphics* on online communities or blogs has endorsed the effectiveness of deploying infographics for journalistic objectives. An analysis of such positive responses revealed that *Chosun.com's InfoGraphics* is garnering significant interest in Korea's infographics market.

Information will continue to flood the world and with media competition growing widespread and dispersed—fiercer by the minute. News vendors will be incentivized to produce more and more sensational articles to attract more readers. In a media environment like this, readers will begin to crave quality news and reliable in-depth news and information. As such, the growth and development of infographic contents will be inevitable when more vendors respond to such readers' needs. However, for this format to gain steady progress and further reach, the following multi-faceted changes are needed.

**INFOGRAPHICS NEED A WIDER AUDIENCE**

Currently, the general perception is that infographics are simply a visual aid to main news articles rather than being an independent news format. In addition to this, readers today tend to be attracted to hot issues, or gossip news articles. By steadily planning and producing in-depth infographics that are optimized for various electronic devices, readers will turn their attention to news in the form of infographics rather than just text. Such efforts, over time, will bring an increase in the output of quality infographic news articles. There will also be changes in the way readers obtain news. Vendors and readers will no longer be in a sender-receiver relationship: readers will actively participate in the act of obtaining information and news articles will become channels for communication between vendors and readers. One main format that will play an important role in all this is infographics.

**A WIDER POOL OF EXPERTS IN DATA MANAGEMENT AND ANALYSIS ARE NEEDED**

The issue of “categorizing floods of data” is most critical in producing infographics. It is also the first step in offering more information to readers. The problem is, there aren’t enough experts in this field in Korea; a huge amount of data is waiting to be uncovered while a great deal of valuable data is being discarded. It is crucial that experts and professionals be nurtured and developed in order to provide readers with a wider range of information.

**MORE MASS MEDIA ORGANIZATIONS NEED TO OFFER CONTENT IN THE FORM OF INFOGRAPHICS**

Currently, only a very small number of major Korean news media vendors offer organized infographic services. If their services continue to gain readers’ trust, their services will soon surpass those offered by overseas vendors. Amidst today’s continuous flood of information and multiple devices from smartphones to tablet PCs, we can see the future of infographics. People now seek information that is intuitive to view and understand. They also want to personalize information by participating in news items of their choice. *InfoGraphics* will continue to meet such readers’ needs and will achieve steady growth by embracing change. In today’s infographics market vendors are able to offer infographics that are “eye candy”, but not many are capable of offering infographics that have been produced with clearly-defined objectives and contain accurate information obtained from credible sources.

**CONCLUSION**

After the great success of *Chosun.com’s InfoGraphics*, many other news media vendors in South Korea have initiated similar services. We predict that information graphics applied in news media will continue to grow in this market. However, we also assert that many news media vendors are not capable of producing information graphics based upon the most accurate data, clear intents, or as well-developed methods as performed by *Chosun.com’s InfoGraphics* because we are dedicated to the proposition that information graphics must be far more than attractive “eye candy” and instead empower our readers.

**BIOGRAPHY**

*Mi-sun Kim* works for Digital Chosun Inc., one of Korea’s leading online news websites. She is in charge of managing the *InfoGraphics* team of the company, dedicated to creating visual representations of news and information.

She holds Bachelor of Fine Arts (BFA) in Fine Arts, and is pursuing her master’s degree (MA) of Advertising and Public Relations in Journalism and Mass Communication at *Yonsei University*, South Korea. She has been involved in various projects such as creating documentary videos as a filmmaker or producer. She also participated in *The Chosun Ilbo’s “On The Border,”* a documentary on the flight of North Korean refugees, which drew worldwide acclaim and won awards from global events including *Monte Carlo TV Festival Awards* and *Rory Peck Awards*.

**ACKNOWLEDGEMENTS**

Quality infographics are only possible through the dedication and capability of the persons who participate; here are names and titles of the individuals who generate the content for *Chosun.com’s InfoGraphics*.

*Mi-Sun Kim* (article principle author)

In charge of the overall planning and supervision of content for *Chosun.com’s InfoGraphics*

*Sun-Nyeo Kim*

In charge of planning content and management of *Chosun.com’s InfoGraphics* services

*Se-Jong Lee*

In charge of planning, 3D production and motion graphics

*Eun-Kyung Hong*

In charge of planning and Flash production

*Jung-In Park*

In charge of *InfoGraphics* content design

