

THE USE OF INFOGRAPHICS IN NEWSPAPERS' BUSINESS REPORTING
ABOUT GLOBAL MARKET SWING

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TABLE OF CONTENTS

ACKNOWLEDGEMENTS	ii
LIST OF TABLES AND FIGURES	iv
Chapter	
1. INTRODUCTION	1
Goals of the Study	
2. WEEKLY FIELD NOTES.....	4
Internship with The Stream at Al Jazeera, Washington Program field notes	
3. EVALUATION.....	28
4. PHYSICAL EVIDENCE	32
Physical evidence of the internship work	
5. ANALYSIS	
Introduction	47
Literature Review	49
Methodology	55
Results	58
Conclusion.....	86
Discussion	89
REFERENCES	91
APPENDIX	
1. CODE BOOK	93
2. LIST OF SAMPLES	95
3. PROJECT PROPOSAL	105

LIST OF TABLES AND FIGURES

Table 1: List of episodes of The Stream	33
Table 2: The number of sample articles and infographics by publication	58
Figure 1: A screen shot from Zhou Hang’s Twitter	43
Figure 2: A screen shot from The Stream “Peru’s election shake-up”	44
Figure 3: A screen shot from The Stream’s Twitter account	45
Figure 4: Front page of USA Today	61
Figure 5: The Dow Minute by Minute	62
Figure 6: Value of yuan against U.S. dollar	63
Figure 7: Global export market share	64
Figure 8: An infographic about European stock markets	65
Figure 9: Chart of the day: US\$-yuan	66
Figure 10: Chart of the day	67
Figure 11: Slumping Stocks Are Igniting Broader Fears	68
Figure 12: Currency and resources	69
Figure 13: ‘Black Monday’ triggers stock sell-off	70
Figure 14: The China Factor	71
Figure 15: An Abrupt Move	72
Figure 16: Race to the bottom	73
Figure 17: The Yen, Won and Renminbi: A triangular guide to the East Asian currency wars	74
Figure 18: Far East retreat	75

Figure 19: Dow Jones industrial average.....	77
Figure 20: Worst points drops in Dow history.....	78
Figure 21: The change of Apple’s share price	79
Figure 22: The buck does not stop here	81
Figure 23: China’s growth challenge.....	82
Figure 24: Spread of woe.....	84

Chapter One: Introduction

After studying three semesters at the University of Missouri School of Journalism, I finally came to the last stage of my master's program, to finish a professional project. In the past three semesters, I took courses varied from theoretical to more practical. These courses enriched my understanding about journalism and better prepared me with necessary skills to finish this project, such as writing literature reviews and conducting qualitative research. After working with the *Columbia Missourian* and *Global Journalist*, I found out my career goal is to become a multimedia journalist covering major international news. Because of that, taking part in the Washington Program and working on a professional project was the best fit to finish my mater's degree.

For this professional project, I worked as an intern at Al Jazeera English for the program *The Stream* in Washington, D.C. Al Jazeera English is an international 24-hour English news and current affairs TV channel within the Al Jazeera Media Network. Its Washington center mainly serves the United States and other American countries.

The Stream is a daily television and online show that generates discussions from online sources. Over the 14-week internship, I worked as a researcher 32 hours per week, starting January 2016. I helped with episodes about the Flint water crisis in the U.S., refugee crisis in Europe and student activists in Japan, among others.

Working as a researcher for the program required me to react quickly to different stories happened all over the globe, find reliable sources for background information and latest developments, and sort them into a well-organized research document for the moderators. In this process, I also needed to work closely with the moderators, senior

producers and digital producers on various tasks and check necessary facts. These are skills I have learned through my previous study and experience at the University of Missouri, but were further developed during the internship.

For the analysis component of my project, I conducted a textual analysis about infographics and articles from five major newspapers: the *New York Times*, the *Washington Post*, *USA Today*, *Financial Times* and *South China Morning Post*. These infographics and articles were produced within a one-month time frame after China unexpectedly devalued its currency renminbi and triggered a worldwide stock market swing. This analysis sought to answer the following research questions: a) What are primary concepts and meanings conveyed through these financial infographics? Are there any similarities and differences between various news outlets? b) What patterns emerge in those infographics and how are they represented through visual representation techniques?

I chose to conduct this analysis because the use of infographics in storytelling is an important aspect of financial journalism. As a potential multimedia journalist, I'm interested in the use and function of infographics. This analysis would be valuable for me to use infographics purposefully to tell a major international story in my later career.

Meanwhile, this analysis is related to my work at Al Jazeera English. In our program *The Stream*, infographics are also commonly used to show the discussion landscape on social media, such as Twitter and Facebook. As a researcher, I needed to pay attention to the existing infographics, numbers and facts related to that week's topic. Sometimes, our graphic designer would use the information I found in my research document to make new infographics for us to use. Those infographics added more visual

elements to the show and helped our global audiences better understand the topic. In this sense, the use of infographics in my own work field gave me more understanding about infographics. It inspired me on what aspects I should take a look at in the analysis and how to decode the meanings and concepts used in infographics.

Chapter Two: Weekly Field Notes

When I started applying for internships last October, Al Jazeera English was on the top of my list. Personally, I admire their serious news reporting. Secondly, I think working for Al Jazeera English would help me improve the professional skills I need for my future career. Thus I was really excited when I finally got this position with *The Stream*. It added more value to the professional component and to this project.

My daily routines with the *The Stream* include different duties assigned by the producers to help with the program. I was able to pitch story ideas, make infographics or find potential guests. But overall, there are three tasks that were assigned to me regularly and helped me learn more about the production process.

Researching & Fact checking

Research took the most of my time as an intern with *The Stream*. Every episode of *The Stream* focuses on one specific topic emerged from breaking news and online discussion. As a researcher, I needed to produce a research document for both the moderators and producers before the show being aired. The research document is a summary of the topic to be discussed in the show. It includes several sections, such as must read articles and must watch videos, related numbers and statistics, other background information, latest developments, potential consequences, etc. The structure of the research document can be different and flexible as topic differs.

In general, the research document gave the moderators the basic knowledge about the topic within a short time so that they can moderate the discussion and ask appropriate

questions. Therefore, the research document should be well organized and easy for them to read and understand.

Because both the moderators and producers used the research document as their primary source for information, when preparing the research document, I also took the responsibility to check all the included facts. I need to be careful with the information I gathered for the research document. Normally I would use articles and reports from mainstream news outlets and organizations. They are considered as reliable sources. Blogs and academic articles are also helpful.

After reading the research document, moderators may raise their questions about certain details or ask for extra information at the pre-show meeting. I needed to respond quickly to their questions and double check the facts if necessary.

The training I got from the University of Missouri prepared me with the skills I needed to do the research and check facts. Therefore, after the first several shows, I had known how to prepare the document quickly and precisely. At the same time, I read a lot of articles about things I didn't use to know. Every week I got some new knowledge. In another word, I was actually learning by doing. I think that's a major reward to me.

Community outreaching

The Stream is a social media driven talk show. So besides the guests we invited, we also value opinion from the general public and other online users. They are referred to as our "online community." Before the show, the digital producers would reach out to our online community for their questions and opinions related to the topic. They would also ask certain users to submit a video comment for *The Stream* to use. During the show,

people can also live tweet their thoughts and the moderators will use the tweets to guide the discussion.

In my research document, I normally included the hashtags related to the topic and listed some influencers who contributed the most to the discussion online. Our digital producer then can reach out to those influencers and ask them to participate. If I got the chance, I would also try to reach out to the online community myself. It was rewarding to talk to these people. They can provide new aspects to the discussion and inspire us about how to better frame the show.

Before this internship, I didn't use Twitter very often. I used Twitter to find guests when I was working for the *Global Journalist*, but I didn't use Twitter as a medium to convey and share my own thoughts nor to get connected with people affected by the news. Through community outreach, I realized that social media now is an inseparable part of journalism. A journalist needs to know how to use social media to connect with his audiences and sources and develop his own brand. Now I use Twitter and other social media more frequently and professionally, and I'm sure it will help me with my journalism career in later days.

Floor management

The Stream is taped in the studio downstairs of our office in Washington, D.C. When I was already familiar with the whole working process, our executive producer assigned the floor management duties to me. It turned out to be the easiest and most fun part of my daily routines. I took it as a break in the middle of my research. To be more specific, the floor management include setting up laptops and check audios for the

moderators in the studio. If on that day we will have a set guest, I also need to help settle the guest and get everyone in the studio ready for air.

It's always exciting to be inside the studio and watch the show from behind the scenes. The studio duties are only a small part to the whole program, but they are still necessary and important. It taught me that there's no difference in the importance of all these kinds of duties. Only when they are all done perfectly can we make a successful show. I'm sure it's also the truth in other news platforms.

Washington Program seminars

As part of the Washington Program, on Fridays we attended seminars organized by Prof. Barbara Cochran. Through the visit to Bloomberg, NPR, CBS and Washington Post, I got the opportunity to take an inside look at these different news outlets and learn about the media landscape in Washington, D.C. Additionally, we heard from reporters and experts in different fields, such as pollster Peter Hart, lobbyist Sarah Spreitzer, former White House Press Secretary Mike McCurry and crisis reporter Donna Leinwand. It was inspiring to have discussions with these role models in the journalism industry and from listening to their experiences and stories, I saw some good qualities that I wish I could have myself in my future career.

Field notes

Week 1: January 4 – 8.

On January 4, I started my internship with Al Jazeera English. Our program is named "*The Stream*." It's a social media driven discussion which airs from Monday to Thursday both on TV and online. My duties there include doing research for the hosts and other producers, helping them with some studio duties and necessary graphics.

The challenge I faced is to get accustomed to the new working environment as soon as possible. Thanks to the kind colleagues there, I learnt the format of the research document quickly. I also learnt how to pitch stories from the website and work down in the studio. After knowing all these details, I started working for the Thursday show. It focused on President Obama's latest executive actions over gun control. Here is the link to that show: <http://stream.aljazeera.com/story/201601061226-0025128>.

I was excited because this was my first show and I think as a breaking news, this topic was of great importance and was relevant to millions of people's lives. There has been a lot of discussions out there, all I need to do was to group them together.

Everyone has their own research type. I think my research document is more organized. I tried to cover everything as much as possible, but at the same time to keep the document easy to read and digest. The challenge here is that I have to first learn about the topic myself, then I can make better preparations for the hosts and producers. And all these things need to be done within a limited time. During the research process, I kept checking with the senior producer and ask him what needs to be included into the document.

On Thursday, I went down to the control room for the first time and watched the show live from there. I held my breathe all the time and I joked that I almost suffered a heart attack. However, it was still enjoyable to see the discussion worked out pretty well. After the show, I asked the producers for their feedback. Most of them gave me positive ones, and that makes me believe that I'm now on the right track. I couldn't ask for a better start.

Week 2: January 11 – 15.

This week I worked for our Wednesday's show, which talked about the current refugee crisis among European countries. Here's the link to the show:

<http://stream.aljazeera.com/story/201601121418-0025131>.

Our producer chose this topic because as winter was coming near, it was harder for refugees to travel to or within Europe. Beside the harsh weather, European countries were setting up more obstacles along the route to stop the flood of refugees.

In the beginning, our producer hoped the discussion can be focused on the influence of winter weather on the refugees' travelling and their life in refugee camps. But in the actual show, the hosts paid more attention to one of our guests who happened to be a refugee himself. He shared his own stories when he was travelling and after he settled down. As far as I'm concerned, it was still a good discussion and told the news we wanted to tell, even though a lot of issues we previously thought was left uncovered.

I think that happens from time to time, just like when you are writing an article and you at first had a structure. But after your research and interview, you think another angle would be even better. Your instinct and natural curiosity will guide you to the right direction. In that sense, the show is good. For those uncovered perspectives, our producer said she might do another separate show later.

Week 3: January 18 – 22.

This week, I worked for two shows. The first was on Tuesday about tracking technology. Here's the link to the show: <http://stream.aljazeera.com/story/201602101941-0025150>. The second was on Thursday and it looked at the recent water crisis in Flint,

Michigan. Here's the link to the show: <http://stream.aljazeera.com/story/201601201811-0025137>.

The biggest challenge for me this week came from two aspects. First, I was assigned with two research duties. It gave me less time to get the research document done. Second, there was very limited information about tracking technology out there. It was also my first time heard about this term so I didn't have any previous knowledge. Because of that, I talked with my producer before I started and she helped me break down the topic and made it easier for me to do the research. I think it is vital to understand that the research document serves the show, so it doesn't need to be like the Wikipedia that covers everything. All it needs to do is to inform the moderators of what they should know and what they need to know. In that sense, preparing the research document is like telling a new story to others.

Currently I'm still focusing on the internship and haven't really started writing my research project. I'm planning to gather the materials and samples I need for my research in the next a couple of weeks. After that, I can then start the analysis process.

We started having seminars this week. Our first guest speaker was Peter Hart, the pollster for NBC News and The Wall Street Journalism. We learnt that the accuracy of a poll depends on the size of the sample, other than the size of the universe. Samples selected from people with cellphones and landlines are more reliable than those from the Internet. Hart also gave us some new insights about the latest presidential polling which is very helpful ahead of Iowa and New Hampshire.

Week 4: January 25 – 29.

This week, I worked for our Wednesday show, which talked about the changes that would happen to Iranian after Iran's sanctions lifting. Here's the link to the show:

<http://stream.aljazeera.com/story/201601261249-0025140>.

On January 16, after Iran has completed the necessary steps in a deal to restrict its nuclear program, international economic sanctions from the U.S., U.N. and the EU were lifted. It means a lot to the Iranian government. At the same time, it will have a huge impact on normal Iranian's lives. It's a major international story and I did the research about the previous sanctions and their impacts, about the 2015 nuclear deal and new business opportunities after the sanctions lifting. It's a really good discussion about this latest event and I enjoyed the work as usual.

For my research project, I went to the Library of Congress this weekend. With the help from the librarians there, I found the printed New York Times from August 1 to September 1 last year. That's what I need for the research. I looked through all the papers and collected 41 articles and 27 infographics. This is just the first step towards my final project, but it's a nice progress. I'm planning to use the next 2-3 weeks to finish collecting all the samples.

On Friday, we went to the Newseum. I had heard a lot of this place, so it was really exciting to visit that place. My favorite collection there is the Berlin Wall. In the past, I read several books and watched some documentaries about the history of the Berlin Wall. When I saw them for the first time, I was still shocked by its brutality and beauty. You can see the clear difference between the two sides of the wall, which represent the West Berlin and the East Berlin separately. It's a historical event that the

Berlin Wall finally came down and the fall of Berlin Wall is a cheerful symbol of the freedom of expression.

The 911 section in the Newseum is also fascinating. I really love one quote from there. It reads: “There are three kinds of people who run toward disaster, not away: cops, firemen and reporters.” Even though I still don’t know what kind of reporter I will end up being, I’m still proud of having this experience and being on the right track.

Week 5: February 1 – 5.

This week, I worked for our Wednesday show, which talked about America’s deadly battle with opioids. Here’s the link to the show: <http://stream.aljazeera.com/story/201602031937-0025146>.

Before working for this episode, I had a stereotype about drug users. I would think of those people mainly as poor African Americans, but today’s heroin crisis reality is totally different from that. It has skyrocketed among white people, many of them living in the suburbs and small towns. Many addicts switched to heroin after being addicted to opioids. Since 2000, the rate of deaths from drug overdose has increased 137%. I think this topic is of great importance and is still developing.

Our team decided to do this topic last week. Surprising, on Tuesday, when I was doing research, I found the breaking news that the White House officials just announced that they will seek nearly \$1.2 billion in new federal funding over the next two years to address the growing problem of heroin and prescription opioid use. I shared the news with my producer and we were all excited about this new announcement. It added more values to our show and helped us attract more attention. As a researcher, I found it

lucky. But more importantly, I learnt that it's important for me to pay close attention to the latest development of those topics and make adjustments in time.

For my research project, I went to the Library of Congress this weekend as last week. I found the printed Washington Post from August 1 to September 1 last year. I looked through all the papers and collected 36 articles and 10 infographics. Compared with the samples I collected from the New York Times during the same period, Washington Post published less articles and used less infographics. But there are some similarities too. For example, on August 25, after the “Black Monday”, both newspapers put the market story and the graphic on their front pages. This is just one example of the analysis. I'm expecting to find more as my research moves forward.

On Friday, we visited the Bloomberg Washington Bureau. Last semester, I took the Business Reporting class taught by Prof. Steffens and got a chance to visit the Bloomberg headquarter in New York. So, it was fun to visit the Bloomberg Bureau here in Washington. We had a great discussion with Angela Greiling Keane, the White House correspondent. She shared a lot about her career and reporting the White House. Because Michael Bloomberg was also considering running for president, it was interesting to learn about the changes to Bloomberg's policy about covering Michael Bloomberg. Overall, it was a fun and valuable visit.

Week 6: February 8 – 12.

This week, I worked for our Wednesday show, which talked about the psychology of behavioral addiction. Here's the link to the show: <http://stream.aljazeera.com/story/201602101941-0025150>.

This topic is a follow up to our show last week, which talked about heroin addiction. When I was doing research for the heroin show, I found a video named “Everything we think we know about addiction is wrong”. It said that people didn’t get addicted to drug because of the drug itself, but they were isolated or under pressure or pain. Behavioral addiction, such as internet addiction, gambling addition, shopping addition, is similar to drug addiction except that in behavioral addictions, the individual is not addicted to a substance but the behavior or the feeling brought about by the relevant action. So, my producer thinks it’s a very interesting topic and wants to do a separate show about it.

Except doing research for the show as usual, this week I also tried to make a graphic for the program. It was posted to our Twitter account. I think it’s something new for me to keep trying in later days.

For my research project, I didn’t go to the library to collect any new samples, but organize what I’ve collected from the past two weeks. I also took a close look at all these graphics and related articles. I will carry on the collecting process next week.

This week we had two speakers at our Friday seminar. One is Mark Hamrick from Bankrate. He shared with us the business model of Bankrate and his career path. I think it was good to hear from him about the difference between New York and Washington. Because New York is regarded as the financial center of the U.S., it definitely has an advantage over Washington in business reporting. I think financial reporting here in Washington is more policy driven.

The other speaker is Sarah Spreitzer, a lobbyist in Washington for the University of Missouri system. It’s really fun for me to meet a lobbyist in person and hear about

things they are doing. I asked Sarah if there's any change to her work after all the incidents happened at MU last November. She said they are trying to send the message from the university system out as usual and people in Washington have a broader national perspective. Hopefully, with efforts from both inside the university and outside, the situation at our campus will get better.

Week 7: February 15 – 19.

This week, I worked for our Wednesday show, which talked about sexual assault in Canada and how to ensure justice on trial. Here's the link to the show:

<http://stream.aljazeera.com/story/201602171604-0025155>.

This topic is inspired by the trial of Canada's most celebrated radio host Jian Ghomeshi. Female accusers in this case was attacked and questioned harshly in court. We were trying to take a look at how the justice system can better serve alleged victims while ensuring the rights of the accused.

During the research, I found that in 2014, there were 633,000 self-reported sexual assault incidents in Canada. Only 20,735 incidents were reported to the police and only 7,975 persons were charged. Only an even small fraction of them were convicted at last. This low sexual assault reporting rate may have something to do with the judicial system in Canada and we think it's important to have this discussion.

When our show was uploaded to YouTube later that day, several users made some really disappointing comments there. Someone said this was not news. Right now people are dying in Ankara, Turkey, revolutions are happening across the world, and we should not just pay attention to the trial of a Canadian radio host. I think he's not correct. There's no important news nor insignificant news. Those sexual assault victims in Canada are as

important as those who are suffering elsewhere. In our show, we didn't focus on the trial itself, but a larger discussion about the judicial system and trial course in Canada. We think it's a problem that needs change in the future and would inspire other countries that may have the same problem.

Generally, I'm satisfied with this show. One of our guests, Jennifer-Leigh O'Neill, is especially good. She made a very strong voice. I think the user who posted that comment cannot represent everyone out there, but we should still be cautious about the topic we chose and how we demonstrate it.

For my project, I gathered data from USA Today and found 17 graphics and 49 related articles. It's surprising that USA Today didn't produce as many graphics as I previously thought. After this one, two more newspapers need to be done.

For the seminar, we didn't have one last Friday. I'm expecting our gathering next week.

Week 8: February 22 – 26.

This week, I worked for our Wednesday show, which talked about the current slumped oil price and its global influences. Here's the link to the show: <http://stream.aljazeera.com/story/201602231326-0025159>.

Since mid-2014, oil prices have down 70 percent. Along with that, oil-exporting countries, such as Venezuela, Nigeria and Angola, are battling against decreasing revenues. With devalued currency, people are also having a hard time with higher food prices. However, most people are not aware of the current oil crisis and its potential effect. So, we think it's important to bring up this discussion and answer questions raised by our viewers.

Thanks to the business reporting class I took last semester, I had a fundamental understanding about oil prices and the oil market. I also know where to find credible data we needed. The only problem is that there are so many numbers and statistics that we got trapped. Our producer really wanted to show those numbers in a visual and creative way and we spent a lot of time figuring that out. But during the show, they were rarely used because the actual discussion was not about those numbers, but the meanings and effects behind that. Therefore, the lesson we learnt is that do not be driven and overwhelmed by numbers next time.

For my project, I'm still trying to get access to the two newspapers I needed. I hope I can make more progress next week.

For the seminar, we visited the Foreign Press Center and heard from Mary Katherine Reem. We learnt that the goal of the Foreign Press Center is to promote the depth, accuracy and balance of foreign reporting from the U.S. and help foreign reporters get direct access to authoritative sources.

After that, we also heard from the former White House press secretary Mike McCurry. I think it was a really rare opportunity for us to have a direct discussion with a former press secretary. He is a really fun speaker and he shared with us his career and his role in the general presidential debate. In general, I think the two sessions are both very informative and helpful.

Week 9: February 29 – March 4.

This week, I worked for our Wednesday show, which talked about the Britain's coming referendum whether to leave the European Union. Here's the link to the show: <http://stream.aljazeera.com/story/201603011459-0025163>.

On June 23 this year, Britain will have a referendum about its relationship with the European Union. Someone calls this referendum “Brexit”, which means “Britain exit”. No matter what choice the Britons will make, there will be a huge impact on both the U.K. and the EU. When doing the research, I listed different campaigns from both sides and listed the pros and cons of the Brexit. Also, I included in some potential scenarios after the referendum to give us a better picture about what’s beyond.

Besides working on the research documents, I also helped to find some undecided voters on Twitter and asked them about their concerns. Their response and Tweets were displayed during the show for discussion. I think this is a fun part too.

For my project, I collected samples from the Financial Times Europe Edition. Its online archive database is very convenient and easy to use. So everything goes very well. After this one, there’s just one newspaper left. I hope I can finish that next week and then I can start to write the analysis.

For the seminar, we heard from Donna Leinwand, a breaking news editor and formerly a reporter at USA Today. She shared with us her stories when she covers in Iraq and after the Haiti earthquake. She said when you see a bathroom, use a bathroom. She also said when you are on the ground, you should think about what you are going to do, how you are going to survive and even how to file your story. A reporter also should think out of the box and capture the story that other reporters cannot find.

I think she is a really fun speaker. You cannot imagine she had been to all those terrible places and seen all those tragedies. Maybe that’s what makes her a good crisis reporter. You have to know how to deal with your own feelings. I really want to be a journalist like her who can cover international stories in different countries, even into a

war zone. I think we all don't know when such opportunities would come to us, all we need to do is to always be positive and be prepared. Hearing from an experienced reporter like Donna I think is very useful and helpful.

Week 10: March 7 – 11.

This week, I worked for two shows. The first is our Tuesday show about Japan's new era of activism. Here's the link to that: <http://stream.aljazeera.com/story/201603041732-0025167>. The second is our Thursday show about Chechnya's pro-Russia leader. Here's the link to the show: <http://stream.aljazeera.com/story/201603101151-0025169>.

The biggest challenge for me this week is to work as a researcher for two shows. I have to meet the deadlines and, at the same time, to ensure the accuracy. So far I have been here for about two months and I felt much more confident about how to meet our producer's expectations. I also felt good that now I can use this chance to contribute more to the show.

For the Japanese show, I noticed that March 11 is the fifth anniversary of the Japanese earthquake and tsunami. I pitched this story because I thought it would be a good time for us to take a look at what are the changes in Japan and what does that mean to the Japanese society in the future. Our producer took this idea and focused on the wave of political activism emerged after the earthquake. It's team effort that finally made this interesting episode.

For my project, I collected the rest samples from the Financial Times Europe Edition. It's finally done. I hope I can finish collecting samples from the South China Morning Post next week and then I can start to write the analysis.

For the seminar, we visited NPR and heard from Keith Woods, Vice President for Diversity in News and Operation. It's really great to have a chance to visit NPR and take an inside look at it.

On social media, there was a hashtag called #JournalismSoWhite. In December last year, NPR also released some reports about its on-air source diversity and newsroom diversity. Keith used many numbers and data to address this same issue in his speech. Over the years, there were some improvement but more work still needs to be done.

Keith said that if we are signed on to journalism, we are signed on to accuracy and fairness. Because we are human beings, we have our limits. Therefore, we need diversity. I think this is true and important. However, I still think it's hard to realize an absolute diversity. Our society is changing every day but the majority won't change. If that is the case, people will still think and behave in the same way. Maybe I'm too pessimistic. It's still nice to see people like Keith are trying to fix this problem.

Week 11: March 14 – 18.

This week, I worked as a researcher for our Thursday show which talks about the fifth anniversary of the Syrian Civil War. Here's the link to that show:

<http://stream.aljazeera.com/story/201603171254-0025173>.

Before this one, I didn't know much about the Syria Civil War. I may have heard about it and seen it from the news, but I didn't really understand it nor cared about it. After this show, I now have a total different attitude towards this tragedy.

The facts are astonishing. Nearly half million people were killed directly and indirectly by the war. Millions of people were forced to flee to other countries and became refugees. Syria's economic loss is estimated at USD 254.7 billion. Cities and heritages were partially or totally destroyed. Most importantly, ISIS was emerged during the war and keeps threatening world peace.

This is a really hard topic. During the research, I saw many horrifying images and video clips. But on the other hand, I can see hope. Five years on, people in Syria still keep fighting for their democracy and freedom. It's important for the international society to understand better about Syria and help Syrian people realize their dream from the outside. Personally, I really enjoy this episode and I think it's so far the best one I have ever worked for.

For my project, I finished collecting samples from the South China Morning Post and it meant that I will start my analysis writing next week. I know there's still a large amount of work lying ahead and I will keep working on it.

This week we don't have a seminar. Instead, we attended the Hurley Symposium, which was a nice experience for us to meet alumnus and hear from speakers about what happened on campus last November. So far, we have visited many places and heard from various speakers. I think the Washington Program really helps me better understand the U.S. politics, journalism practice and the city itself. The Friday gathering is more like a holiday to me. After a week's hard work, we can take a time to relax and learn more. So, I'm really looking forward to the remaining seminars we will have. I'm sure they will be amazing as usual.

Week 12: March 21 – 25.

This week, I worked as a researcher for our Tuesday show which talks about Native Americans in arts and literature. Here's the link to that show:

<http://stream.aljazeera.com/story/201603211442-0025176>.

In preparation for the release of the new Harry Potter prequel film *Fantastic Beasts and Where to Find Them*, J.K. Rowling debuted four short stories on her site Pottermore, under the title of "The History of Magic in North America". However, this new series outraged the Native American community.

They accused Rowling of depicting the diverse Native American society as a monolithic group with one set of beliefs, portraying Native American under a stereotype of them being magical and ignoring their current existence.

We think it's important to have this discussion about Native Americans. But, we didn't want the show to be another show just talking about general stereotypes. We decided to focus more on the new narrative to depict Native Americans in science fictions. Moreover, because Al Jazeera America is about to be shut down, we want to remind our American audiences that we are still here and United States is still on our radar.

For my project, I scheduled an oral defense date with my committee this week. With that date coming near, I felt a little bit nervous but also excited. I have learnt so much during my internship and the research that I really want to complete this final project nicely to showcase all of that. Now I have started writing the final results of my analysis and I hope can have the first draft of the analysis done by April 4.

For the seminar, this week we had a discussion with Chris Hamby from BuzzFeed. As a MU alumni and young journalist, Chris Hamby won the Pulitzer Prize for Investigative Reporting in 2014. I think that is very inspiring. Hamby said a journalist should have the ability to learn and adapt. A journalist will never be married to a beat forever; he always can learn from practice. In his opinion, investigative reporting is to bring something already out there to the public with a combination of reporting methods. It's more than just saying here's what someone said, but saying this is where the evidence points to. Facts are more important than opinions.

Also, BuzzFeed as a media company is deeply rooted in the Internet age, especially social media. It's important to see that it now has a strong investigative reporting team to provide hard news. Therefore, good writing and serious reporting are still important no matter what. We should not downplay those basic journalism skills because of the digital development.

Week 13: March 28 – April 1.

This week, I worked for two shows. The first is our Tuesday show about Canada's renewed relationship with Indigenous peoples. Here's the link to that:

<http://stream.aljazeera.com/story/201603291445-0025179>. The second is our Thursday

show about Lebanon's media crisis. Here's the link to the show:

<http://stream.aljazeera.com/story/201603301432-0025181>.

For me, the Lebanon show is more exciting because I didn't have any previous knowledge about that country nor what happened there. I have to learn about it from the very beginning when I'm working on the research document at the same time. Another challenge is, there is very limited international reporting about Lebanon's political

situation and media crisis. It makes it harder to find more updated information from reliable sources.

With the help from our producers who are more knowledgeable about this topic, I construed the research document as thorough as possible. When I was doing the research, I also helped our new intern get more familiar with this work process. After working here for about three months, I suddenly realized that I've learnt so much and I couldn't have done that without the support from other members of The Stream team.

For my project, this week I finished the first draft of my analysis, but it still needs to be further edited and polished. Also, as my internship ends next week, I will include my field notes and my self-evaluation to the final project report. Before the oral defense, I still have a few more weeks to make better preparations, which I think is really great.

We don't have a seminar this Friday. Instead, we are informed of our next week's visit to the Sunday show 'Face the Nation' on CBS. Therefore, this Sunday I watched the program. This week's Face the Nation focused on the controversy around the GOP presidential front-runner Donald Trump. Especially this week, his campaign manager was accused of simple battery and Trump himself made some extreme opinions about abortion.

The show uses both the format of one-to-one interview and group discussion panel to provide insights into the story of that week. Compared to other morning talk shows, I think 'Face The Nation' is more politic driven and more serious. However, I think it should include more voices from different perspectives.

Week 14: April 4 – 8.

This Monday I wrapped up my three-month internship with Al Jazeera English. It was a very emotional moment when I left my ID card on our producer's desk and said goodbye to everyone. I still remember the first day I started the internship, I was nervous and excited about the uncertainties coming ahead. Now, as I finally left this office, my heart was full of gratitude.

I was so blessed to have this opportunity to work for a program and news outlet I liked so much. The whole team took good care of me in the past three months, from my work to my everyday life. When I thanked them for doing so, one of my producers said he also started from being an intern. He knows how it feels and hopes that when I get a formal job later, I will also be willing to help other interns. I took that as a legacy that would be passed along within and beyond the team and that is a really great lesson for me.

Sometimes I cannot tell exactly what I have learnt from this internship in words, but when I started working I can really feel that change. I'm more comfortable and confident with what I can do now. Moreover, this internship strengthened my interest in international reporting. I think it's important to tell those forgotten stories happened in other parts of the world. I think I will still carry on doing this in my future career.

For my project, this week I started working on the final report, which combines my field reports, work samples and evaluations, and the analysis together. Along with that, I'm waiting for feedbacks from Prof. Steffens about the first draft of the analysis. I goal is to finish editing the analysis and the first draft of the report by next week.

Our Friday seminar focused on Sunday shows this week. On Sunday, we also visited 'Face The Nation' at CBS and watched the show from the control room. In the past, I watched shows like 'Face The Nation', 'Meet The Press', etc., but I didn't know they are being called Sunday shows. This discussion and tour gave us a chance to take a look at the role Sunday shows played in U.S. politics and the challenges they face.

I think compare to other TV programs, Sunday shows are more serious and cool. By using face-to-face interviews and discussion panels, they are trying to tell stories of that week in a more constructive and inspiring way. I do think just like that in other news outlets, diversity is a problem. But it's good to see that during our visit to CBS, producers there have paid attention to this issue and trying to do better.

In the digital age, it's harder to win audiences for broadcasting. As one of the longest-running news programs, 'Face The Nation' also made some necessary changes. For example, it used social media to help promote and provoke discussion. It also invited more reporters from younger generations to participate. I think that's necessary and important. Maybe that's the reason why the show still remains competitive after so many years.

Week 15: April 11 – 15.

For my project, this week I finished writing Chapter 2: professional skills component, Chapter 3: project evaluation and Chapter 4: demonstration of work. After that, I grouped these chapters together with the previous analysis into the first draft of the final project. I was exciting to see the project finally came together in good shape. Definitely the project still needs to be further edited and polished. I'd like to make

necessary changes next week so that I can send the project to my other committee members in time before the oral defense.

As our last stop for the seminar, we visited the newsroom of Washington Post. Compared to other newsrooms, the new Washington Post one has more open space and is more modern. Once you enter the newsroom, you can see a large screen with indicators about online visitors, most read articles, etc. To me, it was like the same system that the Missourian used in its newsroom. But it still indicated that Washington Post as a traditional media also underscores its digital performance.

Besides the tour in the newsroom, we also heard from Steven Rich and Amy Brittain, who are investigative reporters for the Post. It was interesting to know that their definition of investigative reporting is an investigative story that exposes wrongdoings. I think that's a simple but high standard. I also agree with them that the best story idea is born out of curiosity.

For investigative reporting, data plays a more and more important role. As the person who gets and analyzes data, Steven said a journalist cannot just report on data. Instead, the journalist should hit on the persons involved and get back to the people. I think that was inspiring. Generally speaking, like editor Jeff Leen said, investigative reporting still has its value and can bring attention in this digital age. If they are done well, those stories would have impacts and that's the public service mission as newspapers.

Chapter Three: Evaluation

When my internship with *The Stream* at Al Jazeera English was about to end, our producer noticed me that they were willing to offer me a fellowship in July 2016 so that I can continue working with them. I was flattered by this surprising offer and without hesitation I accepted it. I think this is the best recognition that I can get after this internship. Therefore, this evaluation is not just about what I've learnt in the past three months, but also my expectations for the next six months to come.

Before this internship, I had worked for different news outlets, from newspapers and magazines to radio programs, but I never had a chance to work for a broadcasting news organization. This internship acted as that missing piece. Nowadays we talk a lot about convergence journalism and personally I want to become a multimedia journalist in my later career. Therefore, it's important for me to know how to use different formats and platforms together to tell a story. After experienced all these types of media, I think I can now comfortably use text, audio and video to produce a multimedia project myself.

Broadcasting requires more team work than others. During my internship, I worked closely with everyone in our team. We met before the show to talk about the line ups and met after the show to discuss what could be done better next time. This close relationship really helped me become part of the team and learn from other colleagues.

Broadcasting is more exciting and demanding too. Our program lives on television and the internet from Monday to Thursday. You are telling the story to thousands of audiences at the same time. It requires everything to be precise and accurate. One tiny mistake would be a disaster for the program. In our pre-show meetings, when

our producer asked me some questions related to the topic that I was not sure about or didn't know, I would feel nervous and a little bit shameful. As a researcher, I should have known that before they asked. However, even though I knew the answer, I would always say I will double check that for you. I think this is consistent with the core value of journalism that I was taught and practiced at the University of Missouri School of Journalism.

Compared to other news outlets that I have worked with or visited, Al Jazeera English is the most diverse one. In our office, you can see different people from different part of the world with different experiences. This diversity is also reflected in our program. The Stream discusses topics from all over the world, from politics to culture, from Africa to Asia. Guests and community members with different opinions are invited to join our discussion to bring up those unheard voices. Even though I still think it's hard to improve diversity in journalism, Al Jazeera English and The Stream act as really good examples out there. No matter what I do in the future, I will always keep diversity in my mind.

As an international news channel, Al Jazeera English really inspired me by its in-depth international news reporting. During the internship, I worked on 16 episodes that covered various news topics in different parts of the world. For examples, we did a show about the refugee crisis in Europe. We also talked about the political situation in Chechnya, Russia. On the fifth anniversary of the Syria Civil War, we paid attention to the damages and the future of that fragile country. We also covered other interesting topics such as behavior addition, diversity in literature and arts and oil prices.

After witnessing the whole production process, I think international reporting is not just about covering stories happened in different countries, it's also about promoting understanding and rethinking worldwide. We live in this fragile world all together. Incidents happened in other parts of the world may seem to be so far from us, but actually they will influence our normal life in one way or another. I now start to care more about others than myself and I take a different look at the world around me when reading the news. Only after we start to understand more about each other can we really make the world a different place. I think that's the power behind international news reporting and that makes me really excited.

While I was working there, some major changes happened within the Al Jazeera Media Network. On January 13, Al Jazeera announced that it would shutter Al Jazeera America. Even though it didn't directly affect Al Jazeera English and our program, it still reflected some challenges in front of Al Jazeera. So far, in three months, four producers of our program left their positions, including our executive producer who had been working here for over 10 years. That was pretty striking to be and our program changed to its survival mode.

Under that impact, I needed to work for two shows per week. Because of that, I had less time to help with other duties, such as writing web content or booking guests. I think that was a pity.

Moreover, I tried to pitch stories for our program every week. Most of the time, they got rejected. Even so, I really want to produce an episode about the stereotype people have about Latin America and the impact of the coming Olympics in Brazil. If

possible, I also want to contribute more topics and content related to China and East Asia. But in my three-month internship, I didn't find a good chance to conduct those ideas.

Luckily, I was offered a second chance because of the fellowship. When I return to The Stream in July, I will pay more attention and devote more energy to these aspects and try to better improve my skills.

I still don't know where I will end up to be after the fellowship. Life is full of uncertainties; all we need to do is to follow our heart. After the internship, I find out that I still believe in journalism with humanity and diversity. I still have a dream of becoming a multimedia journalist who performs international reporting. Al Jazeera English is a milestone in my study and work. It gave me the experience and confidence I need to achieve my career goal. And after all these, that dream seems more accessible to me now.

Chapter Four: Physical Evidence

This section intends to demonstrate the work I have done with *The Stream*. It includes the links to the shows I've worked on, an example of the research document and some related tweets and infographics.

Because of the nature of my work as a researcher, I don't have typical article bylines like students who worked for other publications. But there are 16 episodes of *The Stream* that I took credits on as researcher. They are listed as following:

Table 1

List of episode of The Stream

Date	Title
1/7/2016	Obama takes gun control into his own hands
1/13/2016	#RefugeeCrisis: stories of survival and resettling
1/19/2016	Tracking tech: connected and vulnerable?
1/21/2016	Flint's poisoned water
1/27/2016	Iran: open for business
2/3/2016	America's deadly battle with opioids
2/10/2016	The psychology of addiction
2/17/2016	Justice on trial: sexual assault in Canada
2/24/2016	Oil wars
3/2/2016	Brexit
3/8/2016	Japan's new era of activism
3/10/2016	Chechnya's pro-Russia leader to quit?
3/17/2016	Hoping for a Syria peace deal, five years on
3/22/2016	Reimagining Native Americans in the arts
3/29/2016	Canada's 'renewed relationship' with Indigenous peoples
3/31/2016	Politics and papers: Lebanon's media crisis

I produced a total of 16 research documents for all the above episodes. To show what a research document looks like and how I constructed it, here is an example:

Research doc: Feb 17 Canada Sexual Assault

Must read

- [The Jian Ghomeshi trial: What you missed in court](#) - The Globe and Mail - Feb. 12, 2016
- [Jian Ghomeshi trial sparks Canadian soul-searching](#) - Al Jazeera - Feb. 5, 2016

Must listen (it's very helpful)

- [Fixing a broken system: Sexual assault and the law](#) - CBCRadio - Nov. 9, 2014

Videos

- [Sexual Assault Statistics: Reality vs The Cult of Belief in Canada](#) - Clary Jaxon - 12/2/15
- [What Canadian Law Says About Sexual Assault and Consent](#) - Metracorg - 3/19/15
- [Jian Ghomeshi And The BDSM Debate](#) - AJ+ - Nov. 3, 2014

Statistics & facts

- In 2014, there were 633,000 self-reported sexual assault incidents. ([Statistics Canada](#))
- In 2014, there were 20,311 police-reported level 1 sexual assault incidents (7,688 persons were charged), 319 level 2 sexual assault incidents (221 persons were charged) and 105 level 3 sexual assaults (66 persons were charged). ([Statistics Canada](#))
- In 2013/2014, there were 3,002 sexual assault cases completed in adult criminal court. 1,357 cases were found guilty; 1,333 cases were stayed or withdrawn. Of the 1,357 guilty cases, 748 were sentenced to custody with a median length of 300 days, 885 were sentenced to probation and 25 were sentenced to a fine. ([Canadian Centre for Justice Statistics](#))
- Based on the [2014 Statistics Canada survey](#), only 5% of the sexual assault incidents were reported. The top three reasons for not reporting sexual assault incidents are 'didn't want the hassle of dealing with the police', 'lack of evidence' and 'police wouldn't have considered the incident important enough.'
- According to data from the UCR, in Canada, in 2013, there were approximately 21,300 sexual assaults reported to the police, 98% of which were classified as Level 1.
- In Canada generally, the rate of police reported sexual assaults declined by 4% from 2012 to 2013.
- 1,397 sexual assaults occur in Canada every day. A woman is raped every 17 minutes in Canada. ([Fredericton Sexual Assault Crisis Centre](#))

About Canada's sexual assault laws

[Sexual assault in Canada: Legal Definitions, Statistics, and Frontline Responses](#)-SIECCAN 1/15

In 1983, the terms rape and indecent assault were replaced with a three-tier structure of sexual assault within the Criminal Code of Canada. One reason for reclassification was to reposition acts of sexual violence as "assaults", focusing on their physical and violent nature.

- Summary of Criminal Code of Canada classifications:
 - **Level 1:** Any form of sexual activity forced on another person (i.e., sexual activity without consent), or non-consensual bodily contact for a sexual purpose (e.g., kissing, touching, oral sex, vaginal or anal intercourse). Level 1 sexual assault involves minor physical injury or no injury to the victim. Conviction for a level 1 sexual assault is punishable by up to 10 years in prison.
 - **Level 2:** A sexual assault in which the perpetrator uses or threatens to use a weapon, threatens the victim's friends or family members, causes bodily harm to the victim, or commits the assault with another person (multiple assailants). Conviction for a level 2 sexual assault is punishable by up to 14 years in prison.
 - **Level 3:** (Aggravated sexual assault) A sexual assault that wounds, maims, or disfigures the victim, or endangers the victim's life. Conviction for a level 3 sexual assault is punishable by up to life in prison.

Legal System

[What are the differences between criminal and family court for abused women?](#) - Luke's Place Many women who are dealing with family court are also involved with criminal court proceedings, as either a victim/witness or as an accused.

- Criminal court is the place where people who have been accused of a criminal offence are held accountable. The Crown Attorney presents evidence against them and, if it meets the required standard of proof, the accused person is found guilty and appropriate consequences (probation, fine, jail time) are ordered by the judge.
- Family court is not about guilt or innocence. The purpose of family court is to determine all the issues that arise when family breakdown occurs: how children will spend time with their parents, how parents will provide financial support for their children, how family property will be divided up and so on.
- Not only do criminal and family courts deal with different issues, they apply different legal tests. In criminal court, the judge must find that the evidence proves the guilt of the accused beyond a reasonable doubt. This is the highest standard of proof of any court because a finding of guilt can result in the accused losing his or her liberty by going to jail. In family court, the standard of proof is on a balance of probabilities, which means the judge determines whose story is more believable.
- Criminal court outcomes can include punishment for the accused if found guilty, whereas, even if family court outcomes might feel like punishment some of the time, they are not in a formal sense. No one goes to jail because of what happens in family court.

[Why do the police sometimes charge an abuser even though the woman does not want them to? 10/29/14 - Luke's Place](#)

- Mandatory charging is a policy in place across Canada that requires police to lay charges in domestic violence cases where the officer involved believes there is a reasonable likelihood of getting a conviction, whether or not the victim wants a charge to be laid.

- Before the 1980s, violence against women was largely considered to be a private matter, best kept behind closed doors. In the 1980s, government at both the federal and provincial levels began to recognize that violence against women was a serious social problem requiring a legislative response. Over this decade, various “mandatory charging” policies came into effect across Canada. These policies directed police officers to lay charges in “domestic violence” cases where the police officer believed there was evidence to support such a charge. This approach removed the responsibility for making this decision from the woman and placed it properly with the responding police officer, as is the case in other areas of criminal law.
- Through the 1980s, 1990s and early 2000s, the issue of violence against women received considerable attention. Increased training became available to police officers and others involved in the criminal system. Many police forces developed specialized domestic violence units, which were staffed by police officers who had had extensive training and who had indicated a particular interest in working on this issue. Communities developed collaborative working agreements among those involved in responding to violence against women – shelters, hospitals, child protection authorities, the police and others.
- All of this had a positive impact on how reports of violence against women were handled by the criminal system. However, unintended negative consequences growing from mandatory charging practices began to be identified.
- In particular, we began to see inappropriate charging of women based on misleading information provided to the police by the male partner/primary abuser and/or on biases or lack of awareness on the part of the police. Other challenges included the differential use of mandatory charging policies in cases involving same sex, racialized, poor and otherwise marginalized families.
- In other words, the impacts of mandatory charging are many and complex. While there is no doubt that it was critically important 30 years ago to raise awareness about the seriousness of violence against women, it is not clear that, as presently implemented, it remains an appropriate or effective strategy for addressing violence against women.

[How Canada's sex-assault laws violate rape victims](#) - The Globe and Mail - Oct. 15, 2013

- Queen’s University law professor Pamela Cross, an expert on sexual assault, says that if someone she knows personally were attacked, “**I would advise thinking very hard**” before calling the police.
- The idea was to change culture, not just laws, to acknowledge that sex crimes are not about sex, but acts of physical and psychological violence, and to make it clear that victims should not be blamed but emboldened to seek redress.
- Instead of the loaded word rape – with all its moral and social baggage – three levels of sexual assault were written into law, each level of escalating gravity. But getting rid of the legal term “rape” didn’t stop it. In fact, many argue that it

profoundly defanged the justice system and has resulted in lighter – not tougher – sentencing.

- The reasonable prospect of conviction is often tied to the nuances of sexual behaviour – in particular, the issue of consent. This has proved to be exceedingly complex for the courts: The Criminal Code says partners must take “reasonable” steps to confirm consent. But veteran jurists point out that reasoning is not always present when there is sex involved.

For a Vigorous Defense

[Convicting Jian Ghomeshi will be hard — for good reason](#) - The Star, 2/2/16

By Breese Davies, Toronto criminal lawyer & VP of the Criminal Lawyers’ Association.

- Calls for a justice system in which it is “easier” to secure convictions in cases of sexual assault are dangerously antithetical to basic tenets of our justice system. They threaten the fairness of criminal trials and fail to recognize that it is the person accused of a sexual offence who faces the prospect of a heavy prison sentence, inclusion on sex offender registries for years (or even life) and the associated stigma.
- Myth: Complainants are at the mercy of a disclosure process that routinely exposes their psychiatric records, diaries and private communications to courtroom scrutiny. In reality, these records are not available to an accused person without a court order. Judges apply rigorous criteria when considering requests for private records of the complainant. If such an application is even brought, it is very often dismissed on the basis that the material is not sufficiently relevant to justify intruding into the complainant’s privacy.
- Myth: Complainants are ruthlessly questioned about their past sexual conduct. Parliament long ago passed laws to dramatically curtail this sort of probing. Except in rare cases, the complainant’s sexual history no longer has any place in Canadian courtrooms.
- Myth: Defence lawyers routinely, and as a matter of strategy, bully, abuse or attack complainants during cross-examination. Judges can and do take swift action to halt abusive cross-examinations. But they rarely have to because most defence counsel see little to be gained from “beating up” a complainant.
- There is no denying that a criminal trial can be a bruising process. Testifying in a public courtroom is often unpleasant. Being cross-examined can no doubt feel invasive, even traumatizing, when the subject matter is intensely private.
- However, this scrutiny is vital in our adversarial system. There is no scientific test we can apply to determine whether a complainant consented to the sexual contact in question. There are almost never any independent witnesses to the events that give rise to a sexual assault complaint. Very often, the court is left to assess and weigh the description of the events given by the only two people who were there: the complainant and the accused. Absent a rigorous testing of the evidence and a high standard of proof beyond a reasonable doubt, we run the real risk of wrongful convictions.
- Very few areas of law have been given as much careful consideration by legislators. Their attention has focused on encouraging complainants to come

forward, protecting their privacy and reducing the inevitable stress associated with testifying.

- **The trial process, including the right to test the complainant's evidence, is the only protection an accused person has against being wrongfully labelled and sentenced as a sex offender.**
- The Ghomeshi trial is destined to be sensational. We must not use a single case as the justification for radical change to our laws. Statistics show that both conviction and acquittal rates in sexual assault prosecutions are comparable to other violent crimes.

[How Jian Ghomeshi's lawyer was able to navigate Canada's rape shield law](#) - Nat'l Post 2/16

Section 276 of Canada's Criminal Code, known as the "rape shield," clearly bans using a woman's sexual history to prove the "twin myths" of rape — that she is untrustworthy or consented to the sexual acts in question. But this shield is not impenetrable. That was shown this week at Jian Ghomeshi's trial for sexual assault when the judge allowed his lawyer to cross-examine one of three complainants about her last-minute disclosure that after Ghomeshi allegedly assaulted her, she invited him to her home and consensually masturbated him.

Q: How does a judge decide whether to admit evidence of past sex, other than the alleged crimes?

A: The evidence must be about specific instances of sexual activity, it must be relevant to an issue at trial and have "significant probative value that is not substantially outweighed by the danger of prejudice to the proper administration of justice." As in the Ghomeshi case, it is always used to impeach a witness's credibility, if it contradicts other statements, "but it also often has other relevance," says Joseph Neuberger, a criminal defence lawyer in Toronto. "In a larger sense, it is relevant to the overall narrative and dynamic of their relationship. So there are many ways that other sexual contact could be relevant to the defence, and not breaching the twin myths."

Q: Since the law was enacted in 1992, has it solved the problem it was meant to?

A: Partly. Canada's laws, as written, are progressive and fair to complainants, and the strategy of going after a woman's previous partners to prove she is promiscuous is now uncommon. But the law is still misused in two ways. In one, defence counsel raises prior sexual contact without having made the formal application, and judges do not stop them — Craig says this is common in cases involving married couples. In the other, some of the old rape myths "continue to inform the way the provision is applied, indirectly... You still see those same assumptions emerge."

Q: Can the Crown intervene to prevent fishing expeditions?

A: It can, but in Ghomeshi, the Crown consented. "That likely means that the conduct that's at issue is so intertwined with the charged conduct that it did not make sense for the Crown to contest it," says lawyer Robin McKechney. "The Crown's doing the right thing," Neuberger added. "The Crown has to seek the truth. Their obligation is not to seek a conviction."

[Ghomeshi trial: Did the police do their job? - Globe & Mail 2/11/16](#)

- The general consensus is that the first two witnesses in the Jian Ghomeshi trial essentially imploded in court. Much of the blame in the press and on social media is directed at the lawyers. Some blame the Crown attorneys for not doing their job; others, not appreciating the critical importance of a vigorous defence, slam Mr. Ghomeshi's lawyers for the manner in which they have conducted themselves.
- The police have a critical role to play. The police need to ask the right questions: the questions they are trained to know will be asked at trial. If you know there are e-mails and letters that could undermine a witness's story, ask what they contain.
- The police who take statements from complainants are not meant to be passive recipients of information; they are investigators. This does not mean you tear a witness apart when she comes to report a crime. This means you ask questions to assess the state of the case. See if the story is logical; gather the evidence that is out there – evidence that can hurt the witness's case, and evidence that can confirm their account.
- It's been said repeatedly during this trial that victims of sexual assault react in different ways. Some internalize guilt; some may delay reporting; some may still pursue someone who has abused them. There is no "right" way to respond to abuse.
- Lawyers for the complainants in this case have reminded the public that this trial is about the illegal acts complained of, not what alleged victims did afterward. That's partly true. If Lucy DeCoutere wanted, thought she wanted, or feigned wanting a relationship with Mr. Ghomeshi after he allegedly choked and hit her, that would not make those assaults any less criminal. The problem arises when you state under oath you never communicated such an interest, and that testimony is shown to be false through text messages & letters. It's not the words that are the problem; it's misleading evidence under oath.
- Witnesses change their stories ahead of trial all the time and are still believed by courts. For example, people who are afraid of dangerous acquaintances who have robbed them may at first say they didn't know the perpetrator, later admitting they lied out of fear. If there was information out there that could be used to undermine these complainants' statements, someone should have thoroughly explored that far in advance of trial.
- Women who have been victims of sexual assaults need their friends, family and support networks to say "we believe and support you." The police are not social workers. Their job is to collect evidence and probe the truth. A professional, proper investigation benefits complainants and accused persons equally.

Victimizing the victim

[Jian Ghomeshi trial could deter women from reporting sexual assault](#) - CBC News
2/10/16

- After following coverage of the sexual assault and choking trial of Jian Ghomeshi, [sexual assault survivor Jennifer Leigh O'Neill is concerned] the tough cross-examination by Ghomeshi's lawyer, Marie Henein, has led to public scrutiny of the three complainants and their actions before and after the alleged assaults.
- "I believe that women deserve better questioning when it comes to whether or not consent was obtained. I don't think we need to use these tactics. I think there's

room for a full and fair defence, but I also think that there's room for respecting women's bodies."

- Erin Ellis, a lawyer who represents sexual assault plaintiffs in civil court, says the treatment of some complainants in criminal trials is partly to blame [for low reporting rate]. "I do think some survivors at home watching this will look at their behaviour both before and after the assault and believe that they don't stand a chance and that they wouldn't want to go through a criminal trial. And they may not report it to the police."
- She says that's why some clients who have been sexually assaulted by someone they know prefer to go the route of civil court. She says civil court gives survivors the power to decide how things go up until the trial date, making it the client's case instead of the Crown's case, as is the case in criminal court. Burden of proof is lighter in civil court.

[Jian Ghomeshi trial: defence revictimizing women on stand:Kathryn Kuitenbrouwer - CBC 2/5/16](#)

- [Jian Ghomeshi's defense lawyer] cross-examines the accusers in ways that seems fifty years out of date.
- By her cross-examination, she seems to articulate that they wanted it, that they produced the violence, and then when it happened, they came back for more.
- It's so age-old that the woman has to be this hygienic, innocent, perfect bystander in these cases that it's getting a little time worn.
- Women on the stand are "complex" people with differing sexualities — just as the accused — yet they can only be seen in black and white terms: innocent or guilty.
- Women, when unable to either use fight or flight in a dangerous situation, sometimes placate their way out of danger. So you get a situation where a woman is trying to please a man so he won't hurt her.

[Ghomeshi trial could 'set back the clock' for victims, says military expert CDC - 2/8/16](#)

- A military law expert says fallout from the lurid spectacle of the Jian Ghomeshi trial could make the Canadian military's effort to stamp out sexual misconduct much harder.
- Retired colonel Michel Drapeau says the grilling that the alleged victims received in the witness box will almost certainly give pause to women thinking about stepping forward to report a crime, particularly those in uniform.
- "The trial will probably set back the clock for victims that might be thinking of coming forward," said Drapeau.
- One of Ghomeshi's alleged victims is actress Lucy DeCoutere, who is also a training and development officer in the Royal Canadian Air Force based in Halifax. DeCoutere faced tough cross-examination about her relationship with the 48-year-old former CBC Radio host, and the trial comes as the military struggles to get more alleged victims of sexual misconduct to come forward through a newly established crisis centre.
- The country's top military commander, Gen. Jonathan Vance, has made it clear there will be zero tolerance for abusive behaviour of any kind within the ranks,

and he released an update that says eight investigations into inappropriate actions have been launched.

- The progress report from National Defence shows the crisis centre received 206 phone calls, emails and texts, of which 99 were requests for information — a figure Drapeau interprets as a sign that victims are still hesitant.
- He says reluctance to report sexual violence or inappropriate advances is more intense for people in uniform because there's a greater potential impact on the victims' careers than there would be in the general population.
- There is also the added disincentive that members of the military are not covered by the federal Victims Bill of Rights, Drapeau said.
- Military tribunals are deliberately excluded under the law. Through the legislation, victims of crime can expect to be kept informed by authorities about the progress of their case. They're allowed to speak in court and give victim impact statements.
- A spokeswoman for National Defence says the military justice system has safeguards and procedures built into it to protect victims' rights, including written policy directives that require uniformed prosecutors to consider victims' views in the handling of a case.

[Jian Ghomeshi Trial: Behaviour Of Complainants Not Uncommon, Expert Says](#) - HuffPo 2/16

- Reactions to trauma vary greatly, as does the time it takes to fully process and work through the emotions linked to the event.
- Data suggests about 70 per cent of sexual assaults occur in someone's home and involve a person known to the victim. They are often related to social occasions like parties, dates or a gathering of friends.
- anyone who experiences a sudden sexual assault can experience what's called "cognitive dissonance" if their previous knowledge of their attacker does not mesh with the reality of such assaultive behaviour.

Jian Ghomeshi trial

[Jian Ghomeshi trial: When #BelieveTheVictims meets #DueProcess](#) - CBC News 2/15/16

- Those tweeting social media hashtags like #BelieveTheVictims basically argued that, once lodged, the sexual assault complaint itself should be the beginning and end of the judicial process.
- Two prominent liberal columnists also suggested establishing special courts for sexual assault. That's not unreasonable, really, because sexual assault is already considered a special crime, with a special stigma.
- There are, in fact, already special rules. Sexual assault is the one crime where the accuser (yes, even the false accuser) is allowed to accuse anonymously, while the accused, if an adult, is always publicly named. Defence lawyers are also forbidden to explore the accuser's sexual history (something Heinen, it should be noted, did not do). But the #BelieveTheVictim crowd seems to resent an accused's right to full disclosure of the Crown's case, and cross-examination itself.
- Toronto lawyer Alison Craig says that criminal evidence must be tested for two things: credibility and reliability. "Because we know that witnesses can lie, and witnesses can be mistaken. And the only way — the only way — their testimony

can be tested is by cross-examination." When the full, terrifying power of the state is turned on you, and your accuser is telling lies, due process and the ability to test evidence is all that stand between you and prison.

[Jian Ghomeshi trial exposes troubling double-standard](#) - The Star - Feb. 15, 2016

- The trial of Jian Ghomeshi has exposed a troubling double-standard regarding what, in our culture, we look for in a story. People are complex, trauma is messy, and reactions to stress and pressure and fear vary enormously from person to person, circumstance to circumstance. Just as almost no one is perfect, almost no one is a perfect victim.
- What does it say about our culture when we are willing to buy into fictional narratives that position complex men as heroes, but unwilling to afford real women even a sliver of that same credulity?
- If Ghomeshi leaves this ordeal a free man, it won't necessarily be because he did not choke or strike these women without their consent. It will, at least in part, be because of the skilful manipulation of an age-old narrative: the story that women are not human beings.

Wrongful Convictions

[How an Innocent Man Can Easily Be Convicted of Sexual Assault in Canada](#) - Canadian Association for Equality - Sept. 2, 2015

- Without the requirement for corroboration in sex offence cases, this means that police need only to perform the minimum investigation requirements to build a thin foundation for the Crown to proceed with legal action. The police are not required to investigate the accuser's personal history to evaluate credibility and reliability of their story.
- The preliminary inquiry (or pre-trial) in a sexual assault case is also reduced to its minimum requirement of defining how the accuser will be cross-examined by the defence in abundance of all laws protecting a woman claiming to be a victim. Thus the purpose of the preliminary inquiry to determine sufficiency of evidence becomes moot. The accuser is treated as the victim, while the accused is still treated as a guilty criminal.
- After a judge orally announces their verdict, their next task is to write their reasons for conviction within a framework that confirms their bias. This framework includes citing previous case law confirming why they do not have to justify rejecting the accused's evidence, and why sexual assault victims stories are often vague and inconsistent. As long as the judge met the legal requirement for the framework, the appeal judges may not find reason to overturn the conviction.
- While the various women's rights groups and child advocates may have had, in theory, good intentions in creating these new laws to encourage true victims of what we still perceive as rape or molestation to come forward, the same ideology has resulted in the unintended and extremely dangerous consequences of encouraging false accusations and wrongful convictions.

[Wrongfully convicted B.C. man seeks damages after 27 years behind bars](#) CTV News8/31/15

- The wrongful conviction of a British Columbia man who spent nearly three decades behind bars hinged on a flawed police investigation and Crown prosecutors who were willing to go to extremes to prove they'd found their man, a court has heard.
- Ivan Henry's lawyer John Laxton was in B.C. Supreme Court on Monday to argue that his client deserves compensation after he was mistakenly convicted in 1983 of 10 counts of sexual assault and spent 27 years in prison.

Influencers

<https://twitter.com/lucydecoutere>

https://twitter.com/anne_kingston

<https://twitter.com/NaitSAYger>

https://twitter.com/Ali_Digital

Hashtags

#ghomeshi

#JianGhomeshi

#VAW

#IBelieveLucy

Besides working as a researcher for most of the episodes, I also helped our digital producers reach out to our online community on Twitter. Questions were sent to related Twitter users and their responses will be used for the panel discussion. For example, on March 11, *The Stream* talked about Peru's coming election. Two presidential candidates were bared from participating the election by the electoral boards. I contacted one Peru user on Twitter and asked him about his opinion towards the controversy.

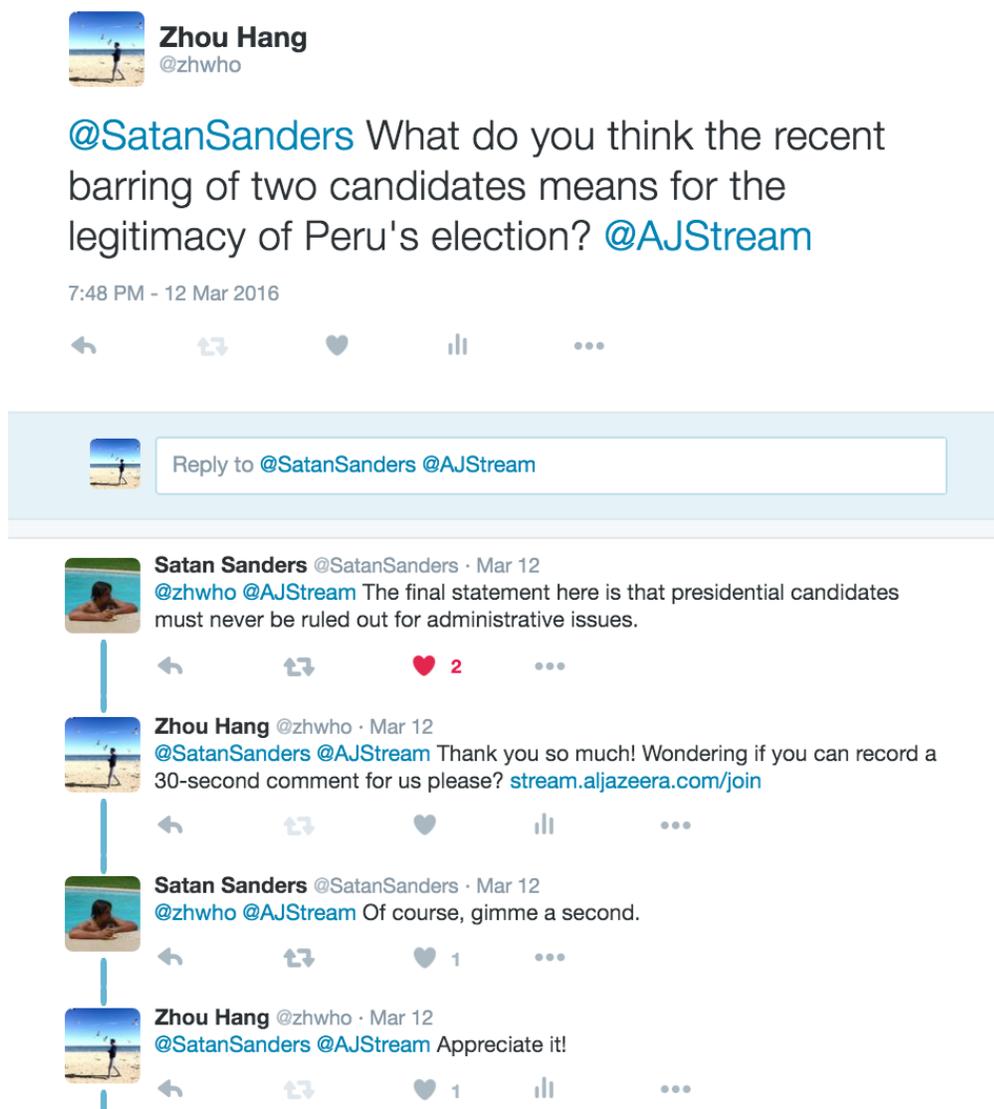


Figure 1: A screen shot from Zhou Hang's Twitter. I reached out to Twitter user @SatanSanders and asked for his opinion about Peru's coming election.

In our brief discussion, I found he was knowledgeable about this topic and had his own opinion to make, so I asked him to submit a video comment for us to use during the show. At last, his video comment was played on air and used as a transition for our discussion.



Figure 2: A screen shot from The Stream “Peru’s election shake-up”, 3/11/2016. The video comment submitted by Twitter user @SantanSanders was played in the show.

My analysis is about the use of infographics in newspapers. During my internship at Al Jazeera English, our program used infographics in the opening of our show to give some background information to the audiences. On Facebook and Twitter, we also used graphics to help promote our show and other latest news. In that case, I also got a chance to make a graphic about the hashtag #DayOfWomenInScience that was trending on the first International Day of Women In Science. The graphic was at last posted by our official Twitter account.



It's the first #DayOfWomenInScience & some are marking it by sharing their #FavouriteFemaleScientist. Who's yours?



RETWEETS 11 LIKES 7



2:12 PM - 11 Feb 2016

Figure 3: A screen shot from The Stream's Twitter account. On Feb. 11, 2016, it posed the infographic I made about the first International Day of Women in Science.

Chapter Five: Analysis

Introduction

In August 2015, China's central bank devalued its official currency the renminbi, or yuan, nearly 2 percent, causing the biggest one-day loss against the U.S. dollar in nearly two decades. This unusual behavior provoked speculation that the world's second largest economy was slowing, and concern led to a massive sell-off on global stock markets, including those in Asia, Europe and the United States.

On Aug. 24, 2015, China's Shanghai Composite Index declined 8.5 percent, wiping out all its yearly gains. The state news agency Xinhua tweeted that it was "Black Monday!" In Europe, Britain's FTSE 100 index, Germany's DAX index and the Stoxx Europe 600 index all fell more than 4.5 percent. In the U.S., the Dow Jones Industrial Average plummeted more than 1,100 points in August, a fall of 6.6 percent. That's the biggest percentage drop for the Dow since May 2010.

This major economic event attracted worldwide attention. News outlets and business journalists reported it thoroughly, as it had many ramifications on both the U.S. and global economy. *CNN Money* reported that because the Chinese government normally keeps its currency's value pegged to the U.S. dollar, the surprise drop set off a wave of selling in global stock market. *The Street* said China now has "unprecedented" influence on Federal Reserve and U.S. monetary policy. *Bloomberg* even asked in its report "Could China's Yuan Devaluation Spark a New Financial Crisis?"

Understanding the implications of the devaluation of the yuan is important because back in August, there was speculation that the International Monetary Fund was

likely to add the currency to its global monetary reserve basket. The resulting market volatility to last August may result in worries about the global financial market, especially fears of a “currency war” that other nations would follow China to make their exported goods cheaper on the world market.

On Nov. 30, 2015, the International Monetary Fund (IMF) officially agreed to add the Chinese yuan to its reserve currency basket, known as Special Drawing Rights (SDR). Therefore, it is timely to conduct an analysis about how media reported the market swing created by the devaluation of the currency and its resulting global influence.

Traditionally, news outlets use text, photos and videos for reporting. With the development of graphic technology and data reporting, information graphics, or infographics, are increasingly used to relay information on complex financial topics. This form is popular because the viewer can study a visual piece to gain more knowledge about the news development. Since the 1980s, infographics have been used in newspapers. However, few studies have been done to analyze the information and symbols in infographics and how they work together with text to better tell a story.

This professional analysis will examine infographics produced by several national newspapers related to the devaluation and stock market swing from August 2015 to September 2015. It will attempt to answer this question: what are the ideas or concepts about finance that are conveyed through infographics in newspapers’ reporting about the August 2015 stock market swing?

In the analysis, the literature review examines previous related research and literature to provide a foundation for new research. In considering the definition and

development of infographics, the review further looks at infographics as a storytelling method in business and journalism. It also considers previous studies about the 2008 economic crisis, which will inform this analysis in both theoretical framework and method. Finally, it will review the research methodology to be used in the analysis.

Literature Review

Definition of infographics and its usage.

Infographic is the abbreviation of “information graphic” (Lankow, Crooks, & Ritchie, 2012, p. 20). It can also be called as “information visualization (InfoVis) or data visualization” (Stasko, 2010, as cited in Siricharoen, 2013).

Different scholars offer different definitions to infographics, such as that an infographic “is a visualization of data or ideas that tries to convey complex information to an audience in a manner that can be quickly consumed and easily understood” (Smiciklas, 2012, p. 3). But among all the different given definitions, “visual, content and knowledge” are the three key elements (Siricharoen, 2013). An infographic can be a number of elements combined with type to tell a story.

Infographics were first used in the early 1980s with the advent of color and as newspaper design was first used as a tool to make things clear. *USA Today* led the way during what was termed a graphics revolution, but newspapers such as the *St. Petersburg Times*, *Los Angeles Times* and *Chicago Tribune* preferred this use on new Macintosh computers, which made data visualization more possible with its revolutionary graphics interface. That made graphics more possible for a new group of graphic specialists.

Infographics were simply used to assist journalists to report. Especially for newspapers, infographics can provide much more detailed information in a limited space (Siricharoen, 2013).

USA Today, launched in 1982, is regarded as the originator and leader in the movement of using infographics among U.S. newspapers (Siricharoen, 2013; Tankard, 1989). Lott (1994) noted that *USA Today* used infographics at the bottom of each section's front page as well as throughout the newspaper every day. After the success of *USA Today*, editors of other U.S. newspapers also realized the potential of infographics. In the next decade after *USA Today*'s launch, the usage of visual elements in storytelling totally changed the look of American newspapers (Utt & Pasternack, 1993).

Several studies have been done to examine the reasons why newspapers now use infographics more often than ever. In general, the reasons found by those studies can be categorized into external factors and internal needs.

External factors include the influence of *USA Today*, the development of technology (Smith & Hajash, 1988) and more severe market competition between newspapers (Kenney & Lacy, 1987). The updated technologies of the Macintosh systems (Lott, 1994), graphics wires, electronic scanning and satellite transmission systems (Utt & Pasternack, 1989) helped newspapers develop more infographics themselves. Infographic service systems like *Associated Press Graphics*, *Knight-Ridder Tribute News Graphics*, *New York Times Computer Graphics*, and *Gannett News Service* also made infographics more accessible to newspapers (Utt & Pasternack, 1993; Utt & Pasternack, 2000).

Internally, newspaper editors are more aware of infographics (Smith & Hajash, 1988). They hope the use of infographics can supplement text, help readers better understand stories and make the look of their newspapers more attractive (Utt & Pasternack, 1993; Utt & Pasternack, 2000).

Another internal need is that infographics can be used to help serve certain goals of newspapers. One study under the circumstance of general elections in 2000 found that public journalism would use more graphic elements to cover issues, analyze and offer contact information than traditional ones. This finding showed that visual elements can and do convey meanings that are consistent with public journalism (Coleman & Wasike, 2004).

Change of newspapers and the development of infographics.

Utt and Pasternack (1989) found that, by 1983, more color was being used on the front pages of U.S. daily newspapers. Half used four-color photographs on Page 1 regularly and more than half used spot color every day.

However, Smith and Hajash (1988) found that students loved newspapers with color, and the color did not lessen the newspaper's credibility. When evaluating the newspaper, readers may pay attention to other, non-design factors.

Additionally, infographics became a regular feature in newspapers. A 1987 study (Kenney & Lacy, 1987) found that graphics consumed 27 percent of total space on newspaper front pages. Smith and Hajash (1988) also discovered that, the total 210 studied printed editions of 30 U.S. daily newspapers published during one week in 1986 has an average number of 31.56 infographics per newspaper and 4.51 per edition. In

1991, about six infographics were used in the entire paper every day in more than one-third of the studied newspapers (Utt & Pasternack, 1993).

Maps, bar charts, line charts and pie charts are the most commonly used infographic forms in newspapers (Siricharoen, 2013; Tankard, 1987; Utt & Pasternack, 1993), and most of the infographics are distributed in newspaper sections like business/economics, weather and inside news pages (Smith & Hajash, 1988; Utt & Pasternack, 1993). Based on usability, the types of infographics can also be categorized as statistical based, timeline based, process based and geography based (Siricharoen, 2013).

Software advances and increased training created more complex characteristics. As newspapers struggled and shrank in number of pages and newshole, the number of infographics decreased in all sections of newspapers, particularly in the use of bar charts, pictorial graphics and 3D graphics. But Utt and Pasternak (2000) noted that the few information graphics used were “better” -- more complex and content driven -- in today’s newspapers.

As more content moved online, infographics also evolved with the digital environment. Technologies like HTML5 can also make infographics more interesting and interactive (Siricharoen, 2013). Interactive infographics can help online news media offer content and service that print edition cannot provide, which can be referred as “added values” (Schroeder, 2004). With the help of computer software, more colorful and beautiful infographics can be created faster and easier. From this aspect, new interactive infographics can be a valuable study area for later research.

Other countries also experienced the same transition. One study (Bekhit, 2009) found that even though newspapers in the United Arab Emirates newspapers used fewer infographics on their front pages, the general number of infographics still increased. One study (Schroeder, 2004) found nearly all the surveyed news sites in Spain offered interactive infographics. Some of the news sites were recognized internationally for that.

In conclusion, the use of infographics in newspapers has evolved steadily over 30 years to meet reader needs. And because of the impact of globalization and the Internet (Bekhit, 2009), it also becomes a global trend.

Telling business stories with Infographics.

Infographics in newspapers do more than complement stories. They add storytelling value and meaning. Many studies reflect this. Segel and Heer (2010) identify the distinct genres of visual storytelling from 58 visualization samples in their research.

The storytelling potential makes infographics reach wider areas. During major political events, such as general elections, the use of infographics can help newspapers better inform citizens about the candidates and election results (Coleman & Wasike, 2004).

In the real business world, more and more companies and organizations are using infographics as a tool to communicate with their audiences (Smiciklas, 2012) and building their own brands (Lankow, Crooks & Ritchie, 2012). Some companies also use infographics in their financial reports and send them to company officials and news outlets.

Those graphics enhance business sections. But the content and meanings in those infographics have long been ignored.

Conclusion.

Numerous previous studies have been done on infographics. Most involve are quantitative research focused on the actual effects of using infographics in newspapers. This includes helping readers recall or understand the stories in newspapers.

There are several qualitative research studies about the workflow of using infographics in newspapers and how editors and producers approach that workflow. But few involve infographics as media content, instead trying to study the symbols and meanings within them.

The above literature inspired the assumption that when covering the latest market swing, newspapers are more likely to use infographics together with text to tell a story to their audiences. Those infographics may also reflect political economic and cultural changes at that time. Those conveyed meanings can be related to neoliberal capitalism. But no previous academic research has explored this topic and examined those infographics. Therefore, based on the literature, the specific research questions that this project will try to give answers to are:

Q1. What are primary concepts and meanings conveyed through these financial infographics as reported by various news outlets covering the yuan devaluation of August 2015 and resulting market volatility? Are there any similarities and differences between various news outlets?

Q2. What patterns emerge (such as the use of certain symbols, words and images) in those infographics and how are they represented through visual representation techniques?

Methodology

Textual analysis.

To answer the proposed research questions, Textual analysis will be used in this study. Textual analysis is used mostly for studies of the way social issues are represented in mass media. Visual analysis, as part of textual analysis, focuses more on the visual representations (Jewitt & VanLeeuwen, 2001, p.1). It is a systematic, observational qualitative method that can be used to test hypotheses about how media represent events and situations (Bell, 2001).

Content is still vital for infographics. Concepts and meanings conveyed in infographics are normally abstract and lack obvious existing representations (Gershon & Page, 2001). Therefore, symbols with complex social codes are used. To study the concepts and meanings, visual analysis can be used to help search for patterns and meanings (Collier, 2001) of those visual elements, and help to decipher the metaphors for representing information.

To increase reliability and validity, Matthes and Kohring (2008) developed an alternative method in the textual analysis of media frames. They propose that frame elements are systematically grouped in a specific way. The pattern of frame elements can be identified using cluster analysis across several texts. Their approach will inform the method that will be used in this study.

Sample selection.

The body of infographics to be analyzed will comprise infographics in major national newspapers' print business section in different regions of the world, including

the New York Times, USA Today, the Washington Post, Financial Times and South Morning China Post.

These newspapers were chosen because they are widely recognized as major national newspapers. They all have a business section and have a reputation for providing high-quality financial news content. And newspapers like *The New York Times* (Segel & Heer, 2010) have regularly used dynamic infographics in their news reporting. They also covered the major markets that were affected in the global stock market swing. Therefore, they can be credible and representative sources to collect infographic and text samples.

The analysis will mainly focus on the dynamic infographics and written stories in these newspapers' printed editions and exclude those on their websites. This is because that online infographics may have different components and may involve more interactive elements. Regarding the use of a common denominator, it's misleading to compare printed infographics with online ones.

The time frame of those selected infographics is from Aug. 1 to Sept. 1, 2015. This time frame includes the time when China devaluated its currency nearly 2 percent and when global stock markets fell dramatically, wiping out all gains made in 2015. Therefore, selecting this specific time frame can help narrow down the number of the infographics to be examined, but still can ensure their relevance. Infographics and articles produced during this time directly related to the currency devaluation and market swing were collected as samples used for analysis.

Moreover, infographics normally are not used alone. Most of the time, they are used to accompany stories. For this research, the meaning in stories will also be taken into account. Moreover, in infographics, there still can be some texts (titles, notes and

captions). These texts are part of the infographics, so their meanings will also be examined together with other visual elements.

Analyzing procedure and expected results.

When analyzing the infographics, Collier's (2001) basic model for visual analysis will be used. First, all the infographics will be taken as a whole to discover some repeating or missing patterns. They can be certain symbols, texts and images. Then, they will be coded and make generalizations about their similarities and differences. An inventory of the categories of these patterns can be used to help the analysis. After that, meanings conveyed by those visual records will be found and the political economic approach will be used to produce deeper analysis.

As expected results, meanings related to the economic crisis, like stock markets, currency and finance system might be found conveyed by the infographics. These meanings can be constructed by the use of certain symbols, words and images in the infographics, and they may be related to the neoliberal trend in global media.

The chosen newspapers may have different ownerships, business mechanisms and news philosophies. As a result, the meanings conveyed by each newspaper's infographics might have slight differences. These differences can be an important part of the final result. But because they are covering the same economic event, the infographics produced must share some common meanings and practice. These similarities are the main focus of the result.

Overall, for this research, visual analysis can help answer the research questions in a systematic and academic way. After taking the qualitative research class, I'm comfortable and prepared to use this method for this project. But visual analysis itself

still has some unavoidable limitations. Visual elements such as infographics normally have complex social meanings. This means that we can only study those simple, widely recognized social categories (Bell, 2001). This can also be the limitation of this research.

Results

A total of 301 articles and 116 infographics were collected and coded from five different newspapers – *The New York Times*, the *Washington Post*, *USA Today*, *Financial Times* and *South China Morning Post*.

General.

Table 2

The number of sample articles and infographics by publication

Title	Number of articles					Number of graphics
	8.1 – 8.11	8.12 – 8.24	8.25 – 8.29	8.30 – 9.1	Total	Total
New York Times	1	17	16	1	35	35
Washington Post	0	9	23	2	34	10
USA Today	0	18	23	2	43	19
Financial Times	4	62	29	6	101	35
South China Morning Post	7	42	34	5	88	17
Total					301	116

On Aug. 11, the Chinese government suddenly announced the devaluation of the Chinese currency renminbi (yuan). On Aug. 24, there was a large scale stock sell-off starting from the Chinese and other Asian stock markets. It then spread to Europe, and at last ended in the U.S. It was called the “Black Monday” for the global market in many news coverages.

Of the 301 collected articles, most of them were published between Aug. 12 and Aug. 29, which is after the devaluation and during the week of global market turmoil. It is consistent with the general timeline of the actual event. It shows that these media followed this major economic story thoroughly and tried to cover it from all perspectives.

Among all the studied newspapers, *Financial Times* has the most related articles, followed by *South China Morning Post* and *USA Today*. *Financial Times* is a London-based business- and finance-focused newspaper. This devaluation and stock market story is directly related to its interest and expertise.

South China Morning Post, based in Hong Kong, also produced a considerable amount of content because the devaluation and market swing is directly related to China. Hong Kong is an important financial center and renminbi harbor and it worries about its future development. So, it reported this financial incident based on both local interest and international attention. *USA Today* as a national daily newspaper in the United States paid much attention to the influence of market turmoil on U.S. companies and the general U.S. economy.

The *New York Times* is the largest and most influential publication examined in this research. Its business section not only covers business news within the U.S. market,

but also regularly pays much attention to the global economy. Therefore, a total of 35 articles and 35 infographics from *The New York Times* were collected and coded.

Of the 35 articles, 14 didn't have any infographics. The most infographics that an article had is 5. It shows that when reporting the devaluation of renminbi and stock market, *The New York Times* is more interested in combining infographics with articles to tell the story.

In terms of the number of articles and infographics, the *Washington Post* both came the last. Compared to other major U.S. newspapers, such as the *Times* and *USA Today*, the *Washington Post* didn't pay much attention to the U.S. stock market. So it has the least content related to that topic in its business section. Most of its report was devoted to national and international financial policies.

Even though there are so many differences in the amount of these newspapers' general coverage about the devaluation and stock market turmoil, they still share some similarities.

On Aug. 25, the day after "Black Monday," the stock market swing hit worldwide headlines. This news appeared on the front page of all the studied newspapers besides the business section. Along with headlines and articles, related infographics were also appeared on the front page, signaling that it was the most important story of the day.



Figure 4: Front page of USA Today on Aug. 25, 2015.

The use of infographics on their front pages adds more visual elements to the newspaper. *USA Today* (Figure 4) even redesigned its title by combining an infographic with a picture. Secondly, those infographics are directly related to the story and can provide an easier way for audiences to understand the context. It turned out to be a national or even international breaking news rather than an ordinary business news. Readers would be naturally attracted and spend more time reading related articles and infographics.

Dominant line charts.

The vast majority of the 116 infographics are fever line charts. A line chart is the most common way to show trends over time and the easiest way to compare more than one group. In this case, line charts were used to show the changes of the stock markets in Shanghai, New York, Japan and Europe in a certain trading day, which is very appropriate. The index of the stock market is changing minute by minute. By using a line chart, a user can easily understand the lows and highs of the market that day. Those sudden slumps can also be shown clearly in the line charts.

For example, in “The Dow Minute by Minute” graphic (Figure 5) published by the *New York Times* on Aug. 25, we can see the sudden 1,000-point slump of the Dow Jones Industrial Average (DJIA) index within minutes after its opening. Here the line chart can show smaller variations than bar charts. Through the curve, a reader can understand how the stock markets changed and can feel the anxiety and shock that came along.

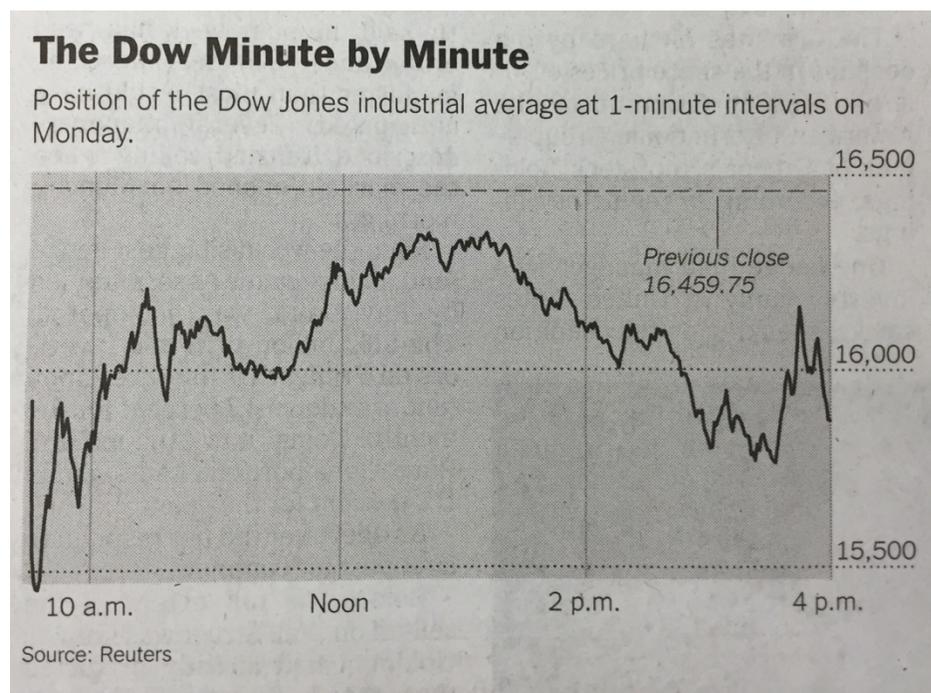


Figure 5: *The Dow Minute by Minute*, *New York Times*, Aug. 25, 2015.

Except the stock market, line charts were also used in showing earning yields, treasury high yields, China’s economic growth and, most importantly, the rate between U.S. dollar and renminbi. Similarly, these concepts are all related to numbers, changes and trends.

In this line chart (Figure 6) about the value of yuan against U.S. dollar, we can see a nearly straight segment after a turning point on August 11. It can effectively represent the 1.9 percent devaluation, renminbi’s biggest one-day drop since 1994. Also, it can reflect the idea of “sudden” and “abrupt” as many media used to describe this surprising move from the Chinese central bank.



Figure 6: Value of yuan against U.S. dollar, Washington Post, Aug. 12, 2015.

Normally, one line can just represent the changes of one element during a certain time. If an infographic just has one line, the information conveyed is very limited. To provide more information and make the best of the space on the paper for infographics,

newspaper would either add more comparison data to a single graphic or group several graphics into a new one.

For example, the *Financial Times* graphic (Figure 7) is about global export market share. In this graphic, five different lines with five different colors are used to mark the top five exporters' share in the global market. By doing so, a reader can tell from the lines about every country's export change in decades. Also, they can compare these different lines to tell their relationships and differences, which provides more information and context to the reader.



Figure 7: Global export market share, *Financial Times*, Aug. 20, 2015.

This graphic from the *Washington Post* (Figure 8) used another way, which is to group several graphics into one. Three line charts showing separately the changes of the stock markets in Germany, France and the U.K. were grouped as one to show the suffering among European stock markets. By putting these three lines separately instead of overlaying, a reader will take them as a whole and find the repetitive patterns. They can see the same slump and understand the scale of the stock market turmoil.

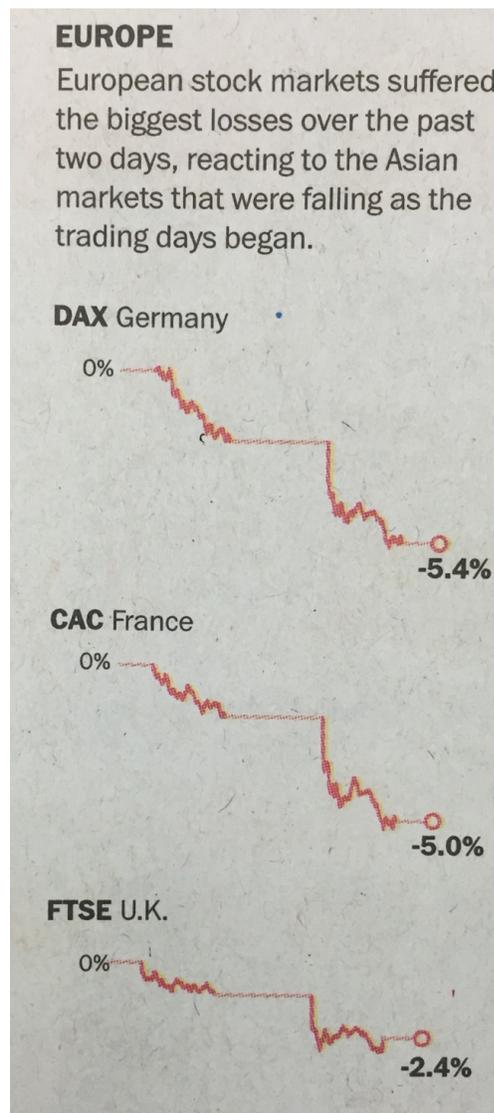


Figure 8: An infographic about European stock markets, *Washington Post*, Aug. 13, 2015.

In most of the cases, infographics were used in accompany articles in these newspapers. They added more information to the article and sometimes helped to explain certain incidents and concepts.

However, just like articles can be published without infographics, infographics themselves can stand alone and tell a story. For example, *South China Morning Post* has a daily section in its paper called “Chart of the day” (Figure 9). It uses an infographic to tell the most important business story of that day. Every day on the front page of the *Financial Times*, there’s also a section called “Datawatch” to showcase the most important infographic of that day. Even so, infographics were occasionally used alone and were less capable of telling the story in depth.

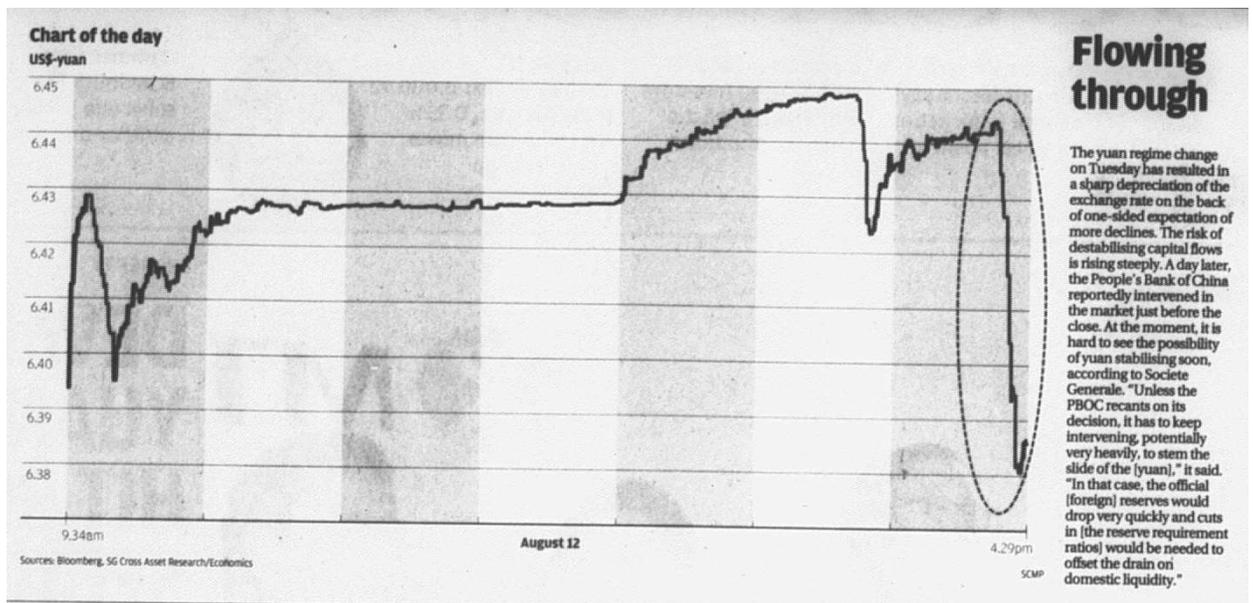


Figure 9: Chart of the day: US\$-yuan, South China Morning Post, Aug. 14, 2015.

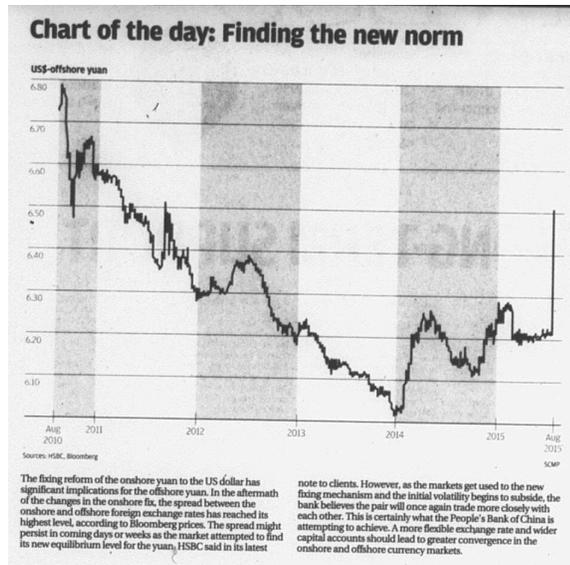


Figure 10: Chart of the day: Finding the new norm, South China Morning Post, Aug. 15, 2015.

Additional symbols and elements.

Besides the basic lines, additional elements such as key points, maps, national flags and currency symbols were added to the infographic to provide more information and to further explain the graphic to audiences.

This annotated chart from the *New York Times* (Figure 10) tells the change in the Shanghai composite index relative to its peak from April 2015 to August 2015. The basic graphic is still a line chart, but based on that, several key points were added to indicate major turning points. Also, they were combined with text notes to further explain what happened on those specific dates.

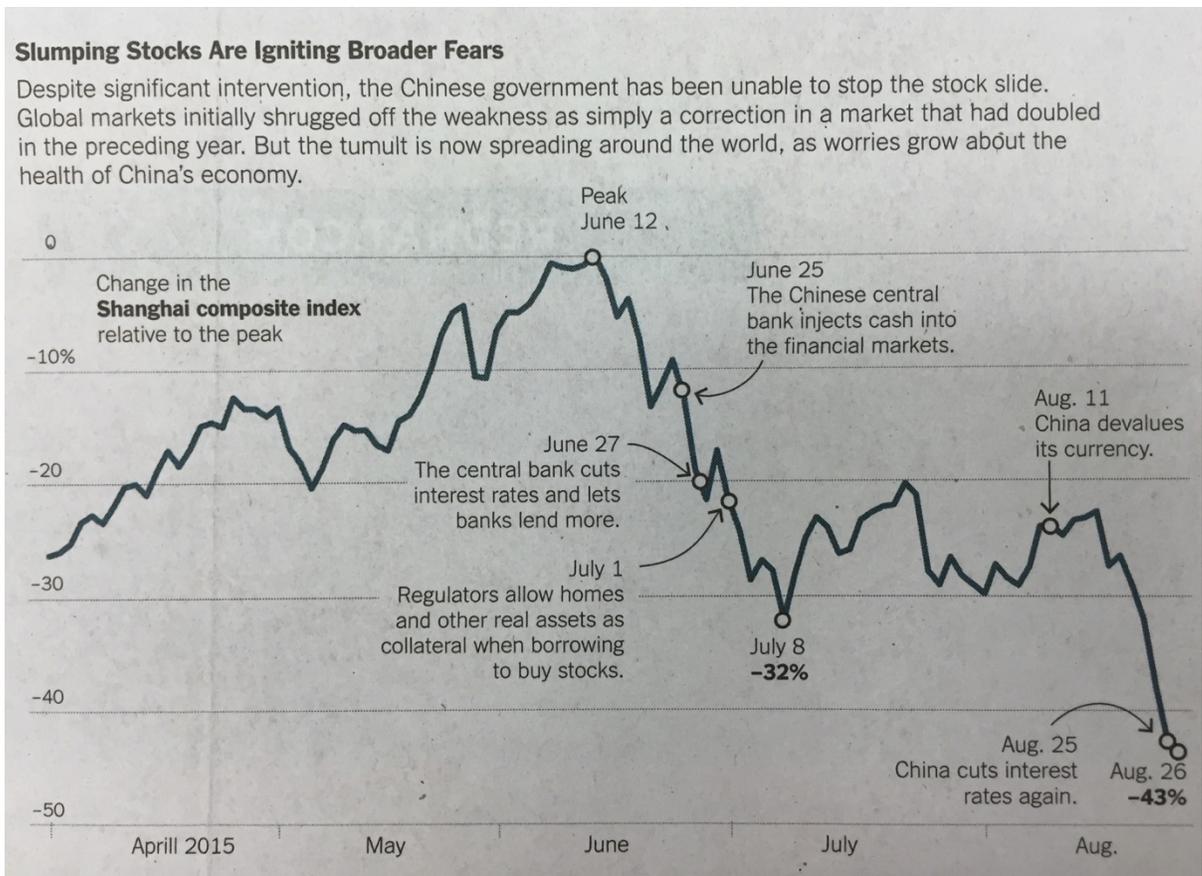


Figure 11: *Slumping Stocks Are Igniting Broader Fears*, *New York Times*, Aug. 27, 2015.

In this infographic made by *Financial Times* (Figure 11), the basic element there is two lines, one indicating the rate between renminbi and dollar, the other is the Bloomberg Spot Commodity index. Built upon this, four specific dates were pointed out. Besides text explanations like those used in the *Times*' graphic, three images were added. To illustrate the point that China carried out its biggest devaluation of the renminbi, the image of the renminbi was added. Compared to text, this symbolic image can attract reader's attention more easily. At their first glance to the graphic, readers can figure out what information is included. It's the same to the other two images used in the same graphic.

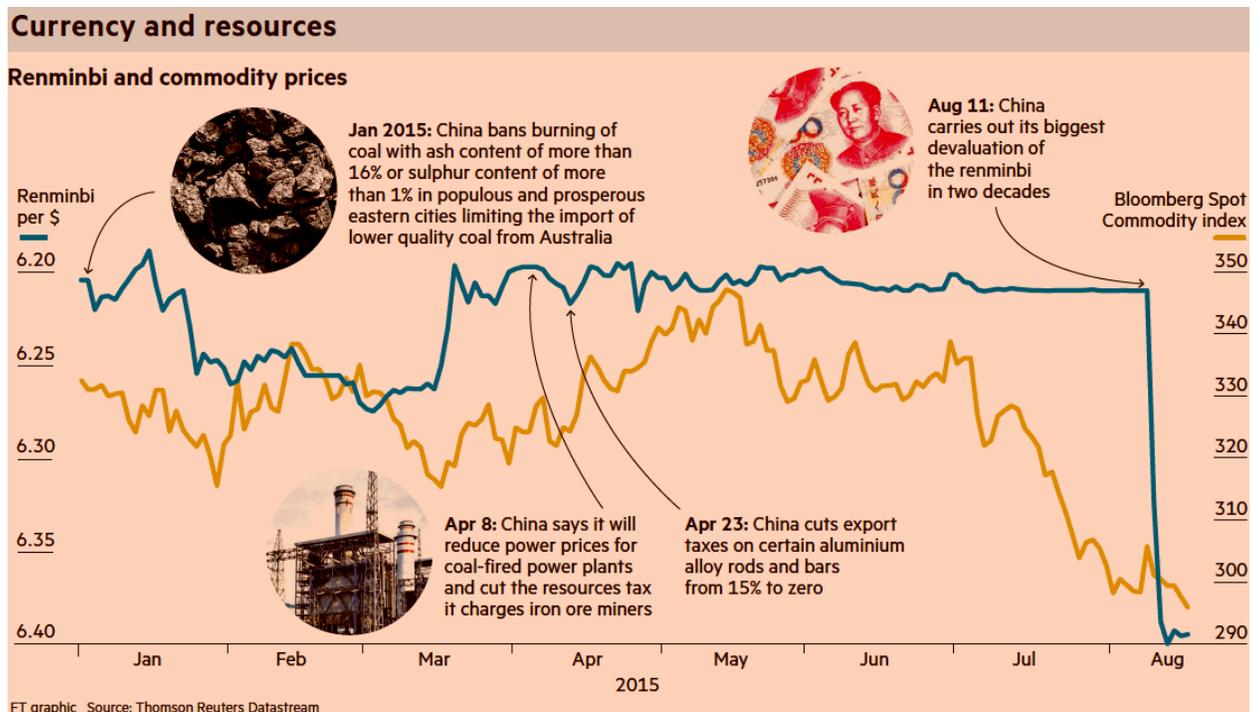


Figure 12: Currency and resources, Financial Time, Aug. 21, 2015.

Other symbols such as world map (Figure 23) and national flags (Figure 17) can also be seen commonly in these infographics. Besides these symbols, photos were also used together with the infographics.

On Aug. 25, the *Washington Post* used four news photos together with the infographics on its front page (Figure 12). The four infographics showed the percentage change of the stock indexes of United State, China, India and Germany on “Black Monday,” while the four photos were about stock dealers and investors in these four countries. From the line charts alone, readers may not understand how severe the stock market swing was. The human figures and their expression in the photos, instead, added more emotion to the infographic. Readers can feel their anxiety, surprise and devastation directly. Therefore, these additional photos not only made the infographics more visually attractive, but also helped to emphasize the story to be told.



Figure 13: 'Black Monday' triggers stock sell-off, the Washington Post, Aug. 25,

2015

Adding more elements into an infographic can help the infographic transform from very simple to very complicated. It depends on how much information the infographic wants to convey and under what context that infographic is used.

The development of the latest computer technology brings new changes and new challenges together to infographics. With technologies such as HTML5, CSS and Java, infographics can be more attractive and interactive on websites. Users can get more information and new experience there.

Because the Internet and newspaper are totally different media, a lot of new characters and elements of interactive infographics cannot be displayed on newspapers.

That's a limitation. In that case, the *New York Times* used a note on its paper (Figure 13) to remind users to check their interactive infographic on their website.



Figure 14: The China Factor, New York Times, Aug. 27, 2015

Unlike the static infographics on printed newspapers, online interactive graphics can be altered based on the needs of the user. They can filter the date that is displayed, zoom in and drill down into the data. Also, online interactive graphics can be shared easily on social media platforms, which would get to more targeted users and generate more discussion (Geidner & Cameron, 2014).

Devaluation and the Currency war.

By using symbols and other visual elements, concepts are constructed and used in infographics with these symbols and other visual elements. These concepts are fundamentals to help readers understand the devaluation and the market swing. They can also reflect how these newspapers construct and frame the story.

The first major news here is the sudden devaluation of the Chinese currency, renminbi. On Aug. 12, when reporting this major news, all newspapers except *The New York Times* made infographics to go with the article. All these infographics are simple line charts about the rate change between dollar and renminbi.

The devaluation of currency has significant economic effects. As it was pointed out in the *Times* infographic (Figure 14), China would export much cheaper products to the global market, which would help boost related industries in China. But it has certain side effects too. It would weaken those Chinese companies that have debt in dollars and foreign companies that relied on Chinese exports.



Figure 15: *An Abrupt Move*, *New York Times*, Aug. 12, 2015.

Along with the discussion about the influence of currency devaluation on markets and trades, the concept of currency war was also brought up.

The term “currency war” was first used by Brazilian Finance Minister Guido Mantefa in 2010 (Eichengreen, 2013). It refers to the situation that a country uses competitive devaluation or monetary policy to drive down the value of a currency to keep a complete advantage in exports (Bird&Willett, 2011).

On Aug. 12, *South China Morning Post* used the title “Devaluation Sparks Fear of Currency War” for its front-page story. The article speculated that other Asian countries, such as Australia and Singapore, would also follow China’s move to weaken their currency. It said:

“The instant devaluation would restore its competitiveness vis-à-vis other Asian currencies such as the Japanese yen and the Korean won that have been weakening over the past year.”

To further illustrate this point, *South China Morning Post* made an infographic (Figure 15) showing the movement of four major currencies against the U.S. dollar.

Race to the bottom

Movement against US\$ (%)

— Yuan — Yen — Won — €

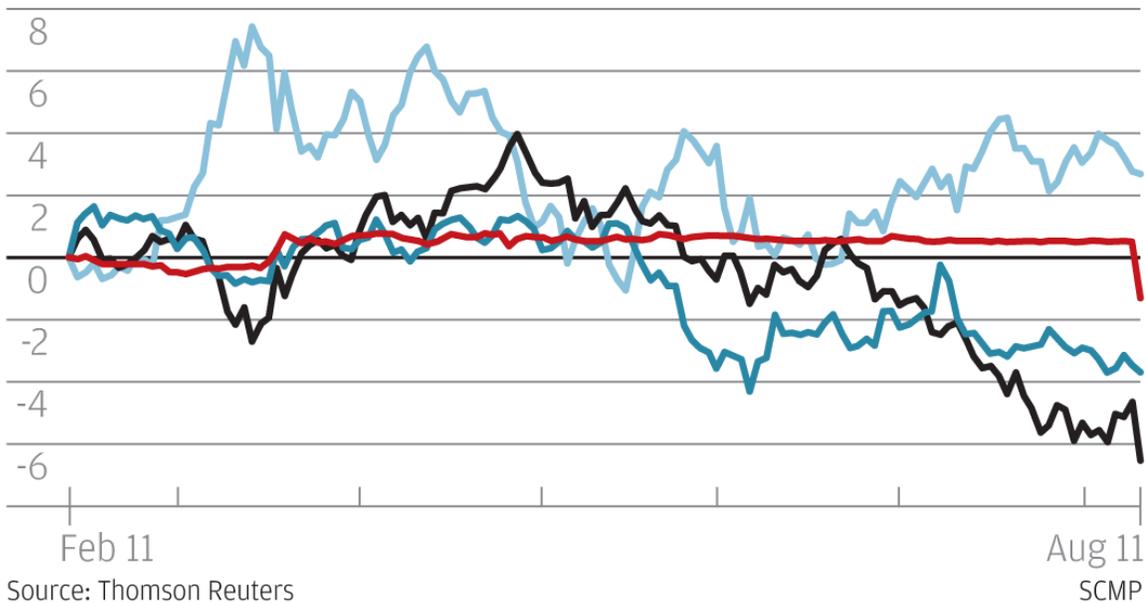


Figure 16: Race to the bottom, *South China Morning Post*, Aug. 12, 2015.

Same to *South China Morning Post*, on Aug. 14, the *New York Times* published a story titled “A Devaluation that Could Escalate A Currency War.” A graphic (Figure 16) was used to show the relative currency strength of the yen, won and renminbi over the last 15 years. It didn’t directly use the rate between these currencies with the dollar, but used a more abstract concept of their relative strength. By doing so, this infographic is much harder for a reader to understand.

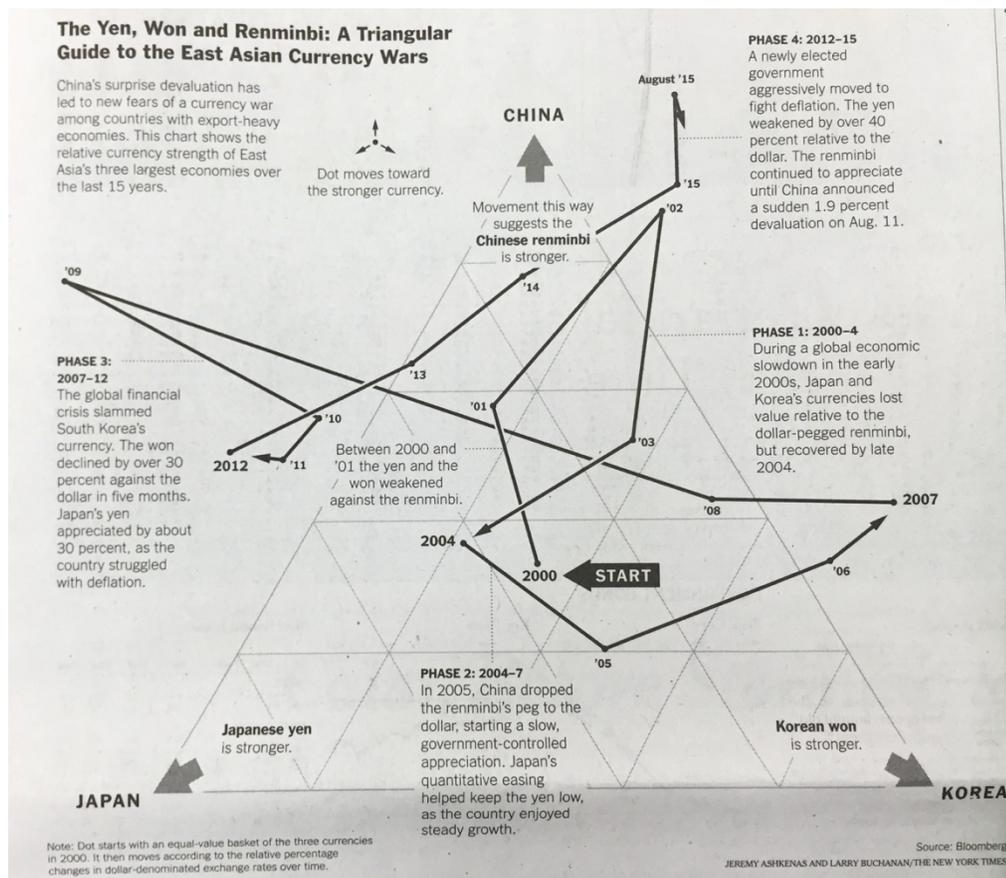


Figure 17: *The Yen, Won and Renminbi: A triangular guide to the East Asian currency wars*, *New York Times*, Aug. 14, 2015.

Financial Times started paying attention to renminbi and other currencies at a very early stage. On Aug. 4, it published an article talking about the situation of Malaysia’s economy and its currency. The graphic (Figure 17) compared the performance of Malaysian ringgit with other Asian currencies, including renminbi. To indicate those

currencies, the national flags of those related counties were used. In the following days, *Financial Times* also published a series of articles about the internationalization of renminbi and its potential risks before the sudden devaluation.

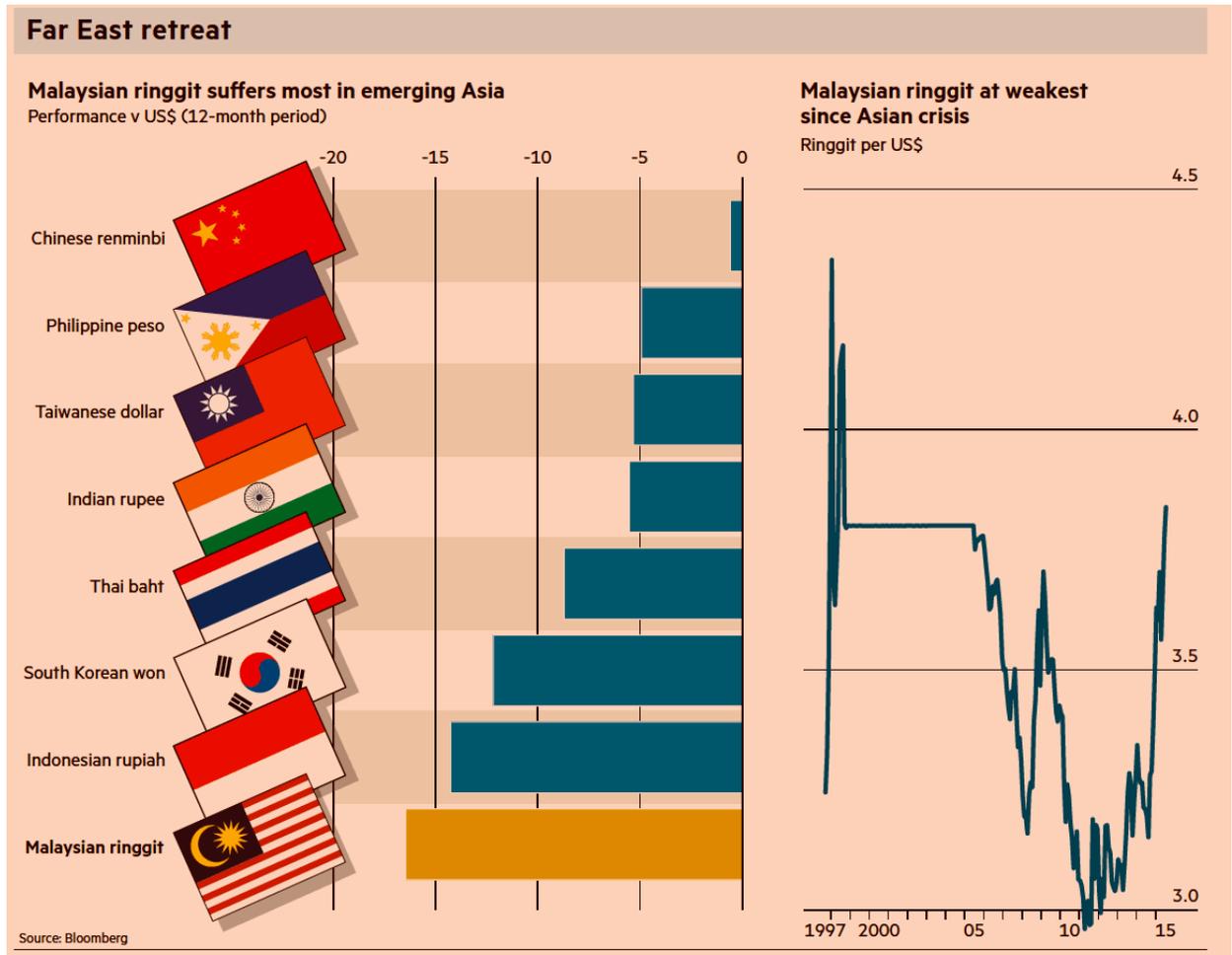


Figure 18: Far East retreat, *Financial Times*, Aug. 4, 2015.

Because it had paid close attention to currencies, different from other newspapers, the *Financial Times* used an editorial to discuss the potential currency war after the devaluation. It said:

“All currency wars are self-defeating for their combatants. When a country slashes the value of its currency to boost exports, it inevitably triggers competitive devaluations by its trading partners, thereby robbing the first mover of its initial advantage. Thus it is unlikely that China... was intending to whip up currency skirmishes among its trade partners into a full-scale war.”

Even so, the editorial still indicates China's action would pressure other countries to seek their own currency depreciations and that would lead to a slower growth of the global economy.

In conclusion, different newspapers had different opinions about the potential currency war, but infographics about currency rate and its trend in past years were used to convey this concept. However, the concept of currency war is too abstract and cannot be shown completely from those infographics. Those infographics still must be understood together with related articles.

Stock market index.

In the *New York Times*, there's one chart that is very commonly used in its articles. The chart is titled "The Dow Minute by Minute." It shows the position of the Dow Jones Industrial Average index at 1-minute intervals on one specific trading day. Of the 35 infographics, nearly half (14) of them are this specific chart.

This is not unique to the *New York Times*. Following the market turmoil, the concept of stock market index emerged among related infographics and articles. The Dow Jones Industrial Average index is also used in infographics from the *Washington Post* (Figure 18), *USA Today* and *South China Morning Post*.

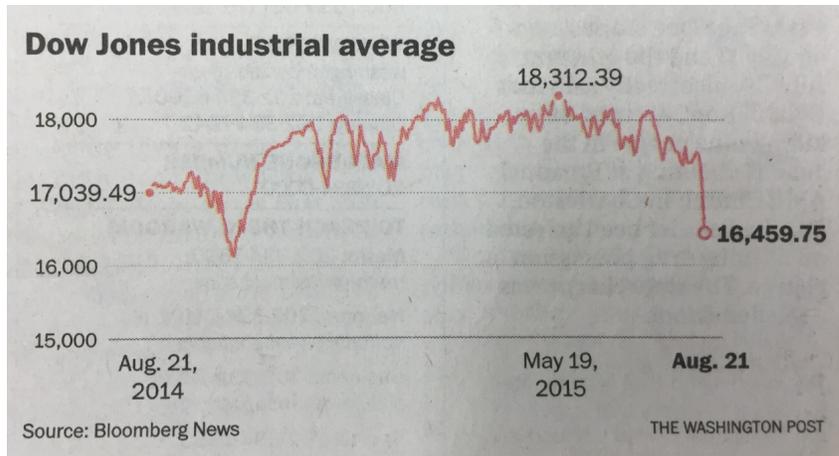


Figure 19: Dow Jones industrial average, Washington Post, Aug. 22, 2015.

The Dow Jones Industrial Average index is a major index of the U.S. stock market. It consists of 30 most capitalized and influential publicly owned companies in the United States. It indicates how these 30 companies have traded during a standard trading session in the stock market.¹ As what Adam Davison wrote in his article, the Dow remains not only a rough measure of stock performance, but also the most frequently cited indicator of U.S. economic health.²

For example, in this infographic (Figure 19), *USA Today* listed the worst point drops in the Dow's history. The market slump on Aug. 24 was among those worst records and ranked 8th. By comparing that with other records in the infographic, including those days during the 2008 financial crisis and after the Sept. 11 attacks in 2001, readers can better understand this current market slump much better.

¹ Paul Kosakowski. Why The Dow Matters, Inversopedia. July 27, 2008.

<http://www.investopedia.com/articles/stocks/08/dow-history.asp>

² Adam Davidson. Why Do We Still Care About the Dow?, The New York Times Magazine. Feb. 8, 2012.

<http://www.nytimes.com/2012/02/12/magazine/dow-jones-problems.html? r=0>

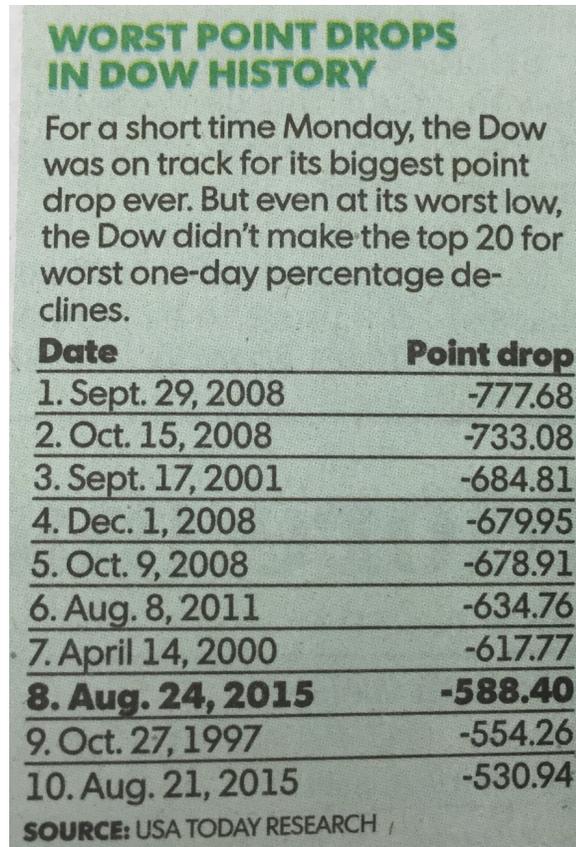


Figure 20: Worst points drops in Dow history, USA Today, Aug. 25, 2015.

Different from other newspapers, *Financial Times* didn't make infographics about the Dow, instead, it used the Standard & Poor's 500 index. Compared to the Dow, the S&P index has more companies listed and it picked those companies based on their market capitalization. There are some previous discussions³ about which one can better represent the market, but overall, they are both major indices for the U.S. stock market.

The common use of these two concepts in infographics indicated that the performance of the U.S. stock market is an important part of this story and the two market indexes can represent the market in the best way. Therefore, many articles and infographics were constructed with this concept.

³ Ray Martin. Why the S&P 500 is a better gauge than the Dow, CBS News. August 28, 2014. <http://www.cbsnews.com/news/dow-jones-industrial-average-sp-500-which-is-better/>

Besides focusing on the general index, those companies listed in the Dow and S&P were also taken into account in the infographics. For example, both the *USA Today* and *Financial Times* (Figure 19) made an infographic about the performance of Apple's stock during the market swing.

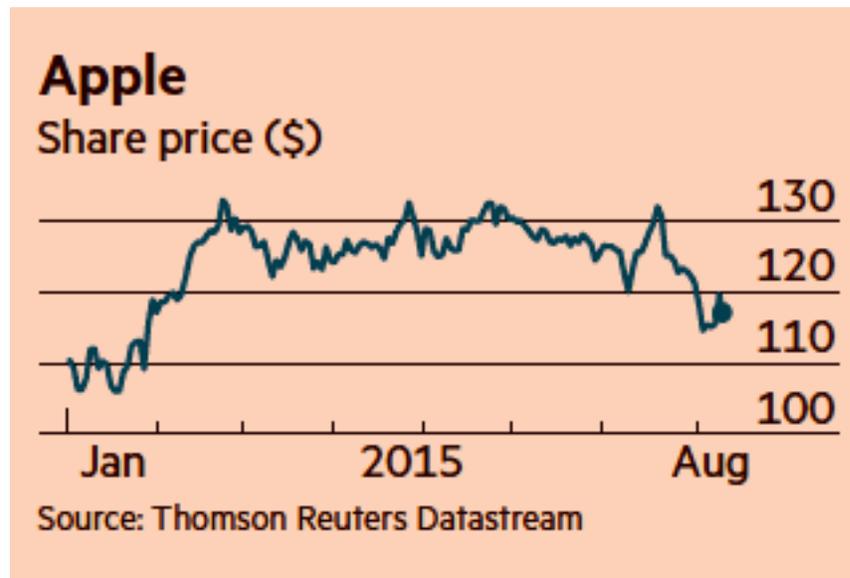


Figure 21: The change of Apple's share price, Financial Times, Aug. 12, 2015.

There are several reasons why Apple is among the focus of these newspapers. First, it's listed in both the Dow and S&P. Second, it's a well-known U.S. company which has worldwide operations. Its performance can to some degree indicate the general economic and market situation. Third, recently Apple relies heavily on the Chinese market for profit and growth. Because of the currency devaluation and market slump both started from China, Apple is directly involved into this discussion.

Federal Reserve.

Before the market turmoil, there was speculation that the U.S. central bank, the Federal Reserve, would raise interest rate at its September meeting. It would be the first time for the Federal Reserve to do so in nine years. But after the turmoil, many believe

that “the financial markets was a risk to the United States Economy”⁴ and because of that, raising interest rates was not likely a move that the Federal Reserve would take.

In the 2008 financial crisis, the Federal Reserve provided emergency loans to global banks and helped bring the global financial system back to life. In another sense, the Federal Reserve acted as “the central bank to the world.”⁵

This time, the global market swing also urged the Federal Reserve to consider its policies more globally. Therefore, the rate hike of the Federal Reserve is not only important to the U.S. economy, but also vital to the global market. Newspapers used this concept and developed it into both articles and infographics in their respective coverages.

For example, *Financial Times* made a graphic (Figure 21) about the move from the Fed with dollar trade-weighted index. In this graphic, decisions from the Fed were put together with renminbi’s decline. It was trying to illustrate the point in the article that the Fed would continue a gradual rates policy and would not raise the rate very soon. Except symbols like dollar and the Chinese national flag, a headshot of Janet Yellen, chair of the Fed, was also used in the graphic.

Compared to the Fed, the People’s Bank of China is less referred to by those newspapers. *South China Morning Post* used the People’s Bank of China most often in its articles. But this concept is rarely shown in infographics.

⁴ Peter Eavis. Soothing Talk by Federal Reserve Officials Buys Wall Street. The New York Times. Aug. 25, 2015. <http://www.nytimes.com/2015/08/27/business/dealbook/daily-stock-market-activity.html>

⁵ Peter Eavis. Soothing Talk by Federal Reserve Officials Buys Wall Street. The New York Times. Aug. 25, 2015. <http://www.nytimes.com/2015/08/27/business/dealbook/daily-stock-market-activity.html>

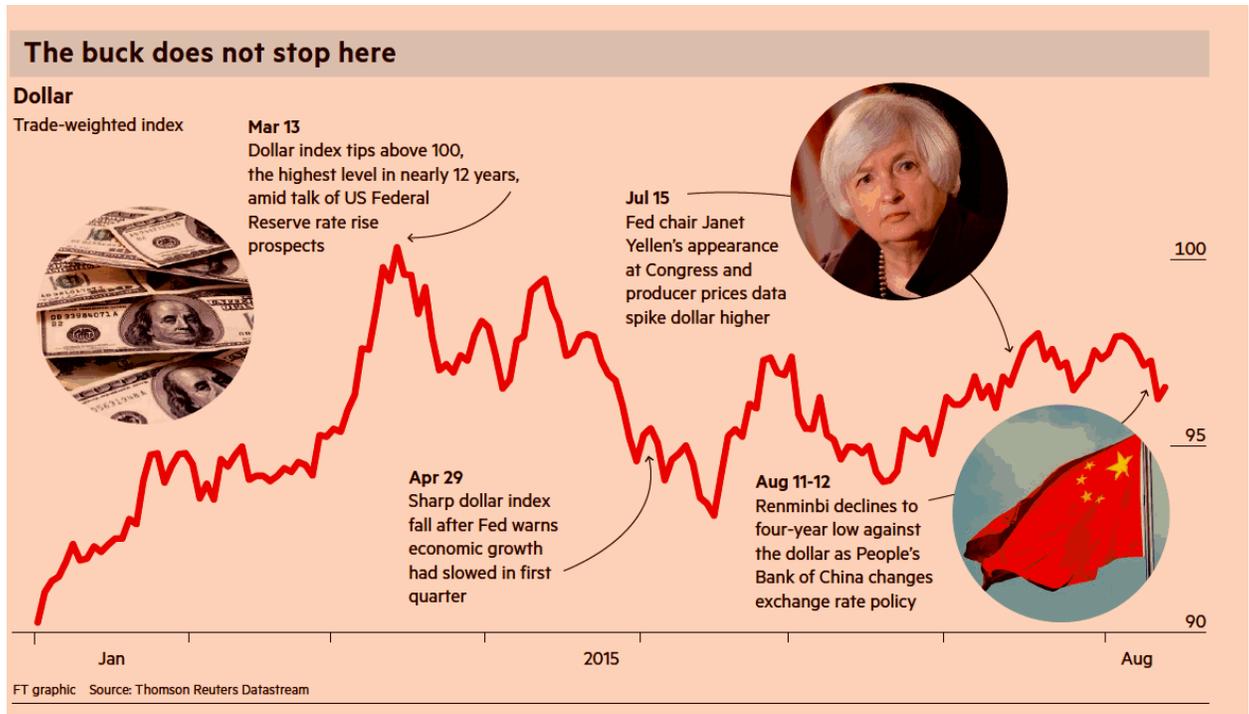


Figure 22: *The buck does not stop here*, *Financial Times*, Aug. 14, 2015.

A slowing and weakened China.

The surprising currency devaluation by the Chinese government is a simple implication about many severe problems China's facing. The following global market rout just deepened investors' fears about a slowing Chinese economy. This concept is constructed and conveyed through those infographics.

First, many negative words were directly used in the titles or notes of those infographics, such as: "slow," "slide," "downward," "weakens," "fear," "worries," etc. These words conveyed a feeling that the Chinese economy is under great challenge.

Financial Times (Figure 22) used four different infographics together to show that challenge. Readers can feel how severe this problem is by the words used and the number of infographics there.

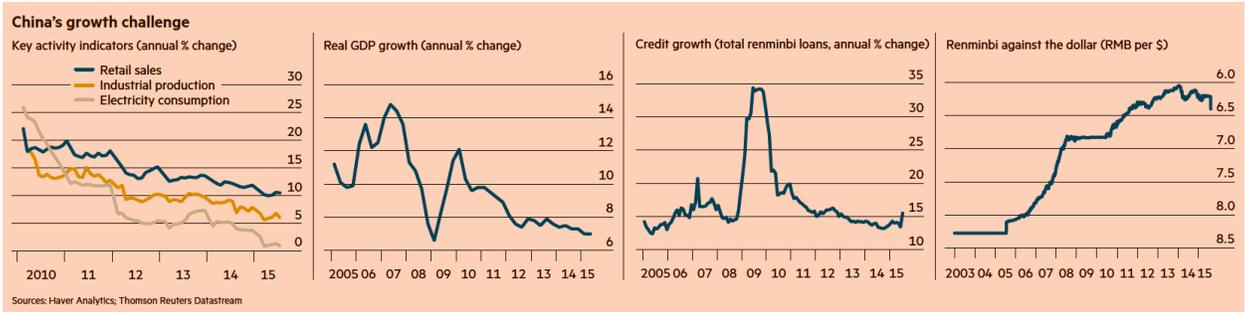


Figure 23: China's growth challenge, *Financial Times*, Aug. 20, 2015.

The devaluation of renminbi and the market swing is beyond a major economic story. It also gives these media a chance to have a larger discussion about China's political situation, economic reform and even media situations.

On Aug. 25, the *Times* published a story about the reaction of Chinese media to the crumpled stock markets. In the face of this explosive economic story, Chinese mainstream media, such as People's Daily, China Central Television and Xinhua News Agency, all remained relatively silent. The article said:

“It was a telling sign that, while Republican aspirants to the White House have upbraided Beijing over the stock market turmoil, China's leaders were sticking to their habit of staying above the public fray when policies turn sour.”

It's important to understand that in China, the media has a different function and operate differently than those in the United States or other western societies. This article is a direct reflection of political economy of mass media and is unique among all the coded articles.

Besides the media, this crisis also gives people a chance to take a look at the possible political and economic reforms in China. On Aug. 28, the *Washington Post* published a story named “Chairman of Everything.” It pointed out that, Chinese President Xi Jinping failed to bring China back from slowing down. To reform the system, the Chinese government needs to “relinquishing control and surrendering power.”

Financial Times also argues that President Xi has accumulated more power than any leader since Mao. The centralization of political and economic power would not help implement any major reforms⁶.

To conclude, the general attitude toward China's current economic situation and future reform is pretty negative. As *South China Morning Post* said in its editorial⁷: "We live in troubled times in which we trust that policymakers push ahead with necessary reforms. Meanwhile, people need to exercise prudence."

These articles with a political economy angle didn't have their own infographics. However, they worked together with other infographics that were made during this time period to construct the image of a slowing and weakened China that faces many challenges.

Emerging markets.

These newspapers also constructed and framed the devolution and market turmoil story beyond China to the broader emerging markets. The article "As economies gasp globally, U.S. quickens" published on the Aug. 28's *New York Times* said:

"Not long ago, the United States was considered the tortoise of the world economy, at least in comparison to emerging powers like China and Brazil. Lately, however, slow but steady seems to be winning the race."

The emerging markets is a concept contrary to the developed markets. It refers to the markets in those developing countries which have greater profit potentials along with higher uncertain risks. Current emerging markets include the BRICS countries (Brazil, Russia, India, China and South Africa), Mexico, Indonesia, etc.

⁶ George Magnus. The Chinese model is nearing its end, *Financial Times*. Aug. 22, 2015.

⁷ Reforms key to calmer markets. *South China Morning Post*. Aug. 27, 2015.

On Aug. 25, when reporting the global stock market turmoil, *South China Morning Post* pointed out that there was a huge panic across emerging markets. A senior trader said in the article that: “Emerging markets climb stairs on the way up but take elevators on the way down.”

This infographic (Figure 23) from *Financial Times* was constructed using the concept of emerging markets. The percentage change of the stock market and currency rate in these countries were identified in this graphic. Besides the U.S., U.K., Eurozone and Japan, other major emerging markets were all marked in this graphic. It illustrated that the current financial events are not a problem to China, but a crisis to the whole emerging markets.

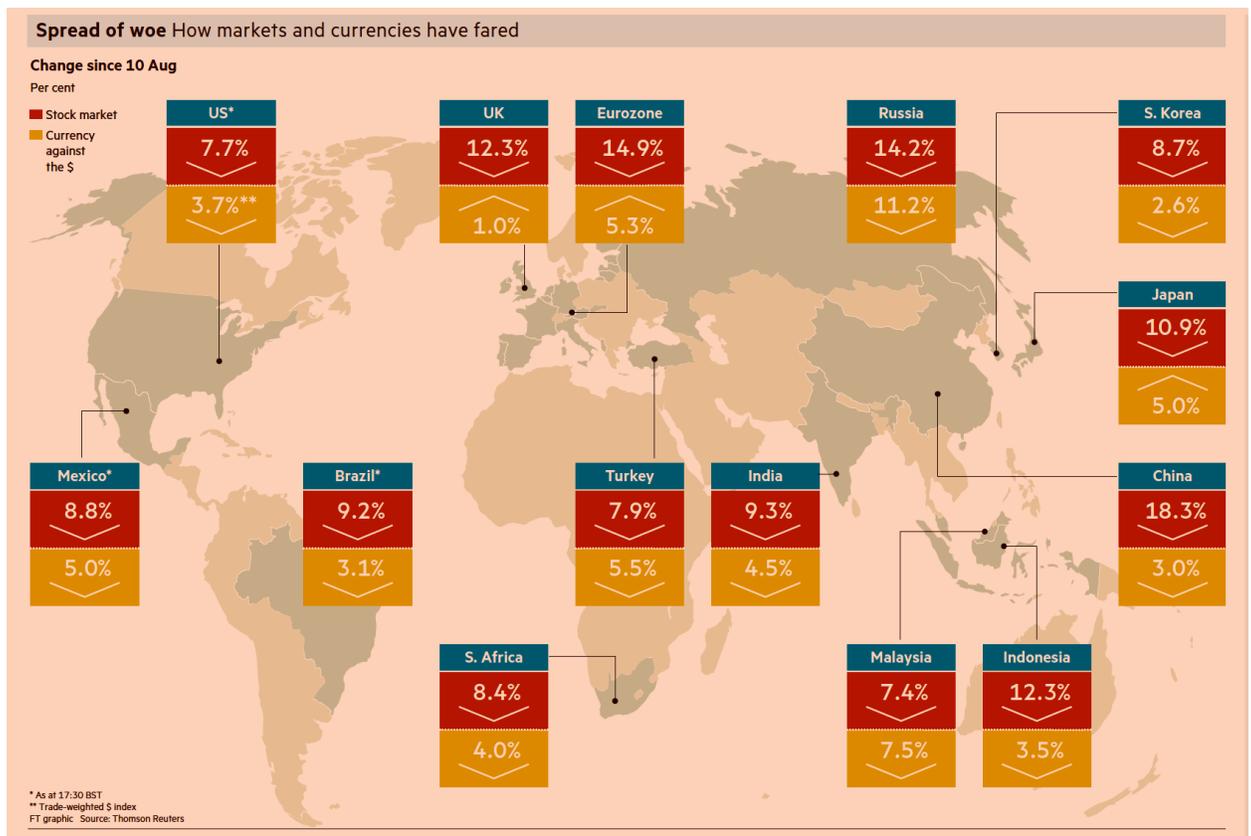


Figure 24: Spread of woe, *Financial Times*, Aug.25, 2015.

Missing patterns.

Even though the “Black Monday” of Aug. 24, 2015 is among those worst stock market slumps in history, news outlets didn’t use the term “financial crisis” to refer to this financial event. Unlike that in the 2008 financial crisis, most newspapers this time used terms such as stock sell-off or market correction.

China is the major player during the currency devaluation and market turmoil. However, concepts and symbols related to China were relatively less likely used in those articles and stories. Symbols and concepts related to the western financial system were used the most often.

Also, these newspapers didn’t take a look at the difference between socialism and capitalism either. Instead, they paid much attention to the difference between emerging markets and developed markets.

To conclude, these infographic and articles just told part of the story. Definitely, the devaluation of the Chinese currency reflected the economic uncertainty and challenge that China is now facing. It’s reasonable that they paid attention to these aspects and tried to explain the situation to its readers. However, the bigger picture behind the market swing was missing.

Because of globalization, the Chinese market now has more direct links to other regional markets. That would be the reason why it triggered the stock market swing in such a large scale. But those links and the influence of globalization were missing in the reporting. Besides that, in the current context, the market turmoil was attributed to the slowing Chinese economy. Those newspapers portrayed the west as a victim by China’s devaluation, but there lacks articles and infographics to show the economic problems

within the U.S. and EU. Those factors might also have contributed to the market turmoil but were ignored.

Conclusion

Based on the results, three conclusions can be summarized to answer the previous research questions.

1. Different newspapers cover the story and use infographics differently, mainly based on its location and targeted audiences. In general, infographics still serve as a complement to articles in newspaper's business reporting.

All newspapers reported this event as a major economic and international story. *The New York Times* and *Financial Times* are better in using infographics together with articles to report this story. The *Washington Post* and *USA Today* mainly focused on the U.S. markets, while the *South China Morning Post* has more original reporting from China and Hong Kong's perspectives.

The usage of infographic in business reporting varies from newspaper to newspaper. But generally speaking, articles are the main part of the reporting. Infographics are used to assist the coverage. Because of the limitation of print media, infographics in newspapers normally just contain simple information. More complicated infographics are less often used.

Even though some newspapers used infographics alone to indicate the most important business news of that day, an infographic in newspapers alone is not enough to a complete in-depth story like the currency devaluation and the market swing. It lacks information and cannot engage audiences. Also, those concepts emerged in infographics can normally be found in articles. But not all the concepts used in articles can be made

into infographics. Therefore, infographics in newspapers still need to be viewed together with the accompanied articles. But no doubt, the use of infographic does provide more context and can help improve readers' understanding.

2. When constructing infographics, line charts are often used to convey one or two related concepts. Most frequently those concepts are related to the U.S. and western financial system.

Line charts are simple but very effective in showing trends and changes in the financial industry. When it comes to smaller variations, line charts are better than other charts. In covering the currency devaluation and the market swing, line charts played an important role in showing the minute to minute stock market change and tiny currency value changes. Also, the lines in line charts develop from left to right, which is consistent with user's reading habits. It makes line charts easy to make, read and understand. Other types of infographic forms such as pie charts, photo infographics, were used depends on the information they have and the context, but generally they were used less often.

Concepts related to the western financial system are used, such as the Dow Jones Industrial Average index, S&P 500 index, the Federal Reserve and currency war. It indicated that this story is still told through a western framework.

To help construct these concepts, symbols like world map, national flags, currency symbols and other photos were used in infographics. They made these infographics more visually attractive and helped build the story to be told.

The western bias can also be seen in the color of those infographics. In Chinese culture, red represents fortune and good luck. Therefore, red is used to indicate rise in the stock market. While in the west context, red means danger and alarm, and is used to

indicate decline in the stock market. In the examined infographics, they followed the western tradition regardless of that cultural difference.

3. With those symbols and concepts, China is constructed as a country facing serious economic challenge and future uncertainty. The economic challenges in China and other emerging markets was the main reason behind the global market turmoil.

After decades of high-speed economic growth, China is facing greater economic pressure from both inside and outside. The devaluation of the Chinese currency renminbi just increased investor fear toward China's hard landing. Through articles and infographics, the problems within the Chinese economic system were conveyed by newspapers to their audiences. It also gave those media a chance to take a look at the other aspects of the Chinese society, such as political situation and media performance. But generally the newspapers used articles to analyze these aspects and it's hard to only use infographics to tell the story.

Besides China, other emerging markets are also facing more and more economic challenges. They were also brought into this broader discussion about global market swing and the potential currency war. However, certain aspects were still missing in those articles and infographics, such as the relations between the Chinese market and other markets, and economic problems within the U.S. and EU. Because the bigger picture behind the devaluation and market turmoil was missing, these newspapers just told part of the story using the infographics.

Discussion

This analysis focused on the usage of infographics in newspaper's business sections. It was done under the circumstance that the sudden devaluation of the Chinese currency renminbi triggered a worldwide fear about the health of China's economy. Reacted to investors' fear, the global stock market suffered the biggest turmoil since the 2008 financial crisis. Many articles and infographics were produced by newspapers to report this major economic news.

The findings from this analysis will enrich the current literature about infographics and provide more updated information about their usage and changes. This analysis would also help readers better understand the importance of infographics in newspapers. Next time, when they are reading newspapers, they will be more aware of the information and concepts in infographics. Also, this analysis can help infographic designers and editors realize the advantage and limitations of using infographics.

This analysis itself has some limitations too. First, this study focused on infographics that are directly related to the context of renminbi's devaluation and the following market swing. There are also many other infographics used in newspaper's business sections. They were excluded from this study, so the result from this analysis may not represent the overall use of infographic in newspapers nor their business sections.

Secondly, as a qualitative study, the analysis is based on the researcher's social experience and culture background. A different researcher may have different interpretations about the symbols and concepts from the same infographics. Therefore, the results have their limitations and cannot be adapted to another different circumstance.

Future researchers could examine the production process of the infographics and how news editors decide whether to use an infographic or not. It would reveal more insight into decision making and graphic creation.

Future studies can also be done on interactive infographics. Different from printed static infographics, interactive infographics online can contain much more information and interact with users. It will bring new changes to the way reporters tell a story. With more and more readers online and with their mobile devices, interactive infographics are also evolving. However, currently there is few related literatures out there. Studies can be done about the use of interactive infographic in traditional news outlets and the development of technology behind that.

During the research, it's relatively hard to get access to the infographics in printed newspapers. Online databases normally just provide text stories and ignore infographics that are related to the stories. It makes it more difficult for researchers to study infographics on print.

As an exploratory study, this analysis examined the symbols and meanings in infographics. A western framework was found in those infographics and articles. Therefore, it's worth using political economy to further study how different national newspapers cover major international news.

Moreover, the online version of the same story may be different from its printed version. For example, its headline might be changed. Facebook post and Tweets might be included into the article. Their differences and the reasons behind that are also worth studying.

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APPENDIX

Code Book

General instructions:

This study is about how five newspapers used infographics together with text stories to cover the devaluation of Chinese renminbi and the following stock market meltdown from August 1 to September 1, 2015.

The unit in this analysis is the article. The code should read the article completely before starting to code. Only related articles will be coded under the following instruction. Also, the infographic that came along with the article should be coded for analysis.

Specific coding instructions

A Publications:

1. New York Times
2. Washington Post
3. USA Today
4. Financial Times
5. South China Morning Post

B Publication date

1. Pre devaluation: 8.1 – 8.11
2. After devaluation, before “Black Monday”: 8.12 – 8.24
3. During market swing: 8.25 – 8.29
4. After market swing: 8.30 – 9.1

C Page section: Write down the section and page number

D Headline: Write down the headline of the story

E Type of the article

1. News
2. Analysis
3. Editorial
4. Opinion
5. Others

F Focus of the article

1. About China and the devaluation
2. About global stock market
3. Future predictions
4. Others

G Infographics

1. Yes
2. No

If yes:

- a) How many graphics?
- b) Title: Write down the title
- c) Type of the graphics
- d) Concept involved
- e) Symbols used
- f) Source of the data
- g) Relationship with the article
- h) Other characters

List of Samples

New York Times		
Date	Page	Title
9.1	B1, B3	A wild month on Wall St. ends quietly*
8.29	B7	Market hit the pause button*
8.28	A1, B7	As economies gasp globally, U.S. Quickens"*
	B1, B6	World market jump as investors seek signals in the noise*
8.27	A1, B2	Soothing talk by fed officials buoys Wall St.*
	A1, B6	Global economy forced to adapt as china falters*
8.26	A1, B5	Stocks deepen their slide after a rebound collapse*
	B1, B5	A crisis flicked and flared*
	B1, B2	Turmoil is unlikely to knock the Fed off course on rates
	B1, B4	China's party-run media is silent on mayhem
	B1, B4	Political risks may foil economic reform in China
	B4	China again cuts rates as concerns mount over sagging economy*
8.25	A1, B4	Aplunge in China rattles market across the globe*
	B1, B2	A warning on China seems prescient
	B1, B3	Hot start-ups may face a bumpy fall
	B1, B3	A month that hedge funds would sooner forget*
	B4	4 factors help explain stock market tumult
8.23	B6	A short step in China's long advance
8.22	A1, B2	Stocks plummet, threatening end to long bull run*
	B1, B2	This week's market sell-off may not be such a bad thing*
8.21	B1, B5	China woes send stocks into tailspin*
8.19	B1	China keeps still-eager global investors guessing
	B6	Summer doldrums settle on Wall St.*
8.18	B2	Market rebound on builder optimism*
8.15	B2	Wall St. Ends the week up, but the path was choppy*
	B3	Chinese central banks holds steady on currency after 3-day drop
8.14	B1, B5	A devaluation that could escalate a currency war*
	B2	Market steady after unease about china subsidies*
8.13	A1, B4	Currency plunge jolts confidence in China's growth

	B1, B4	Bad quarter in hard year for Alibaba; stock falls
	B4	Uncertainty about china rattles global markets*
8.12	A1, B4	Currency move by china clouds its policy goals
	B1, B4	Strains show in china*
	B4	China sees opportunity in a cheaper currency
8.11	B1, B6	China moves to weaken currency
<i>Note: Articles with * are with infographics.</i>		
Washington Post		
Date	Page	Title
8.12	A1,A10	China devalues yuan, rattling global markets*
8.13	A1,A8	China puts credibility on line with yuan move*
8.14	A13	China's central bank slows the yuan's descent, bringing calm to markets
8.15	A11	World has a bigger problem than China's currency devaluation
8.17	A13	China's money game
8.20	A11	The international monetary Fund pushed back China's yuan
8.22	A1,A10	Wall Street closes worst week since '11*
	A6	Shenzhen's diving stock market tests Beijing
	A10	Why are the markets melting down? Don't blame the Fed.
8.25	A1,A8	Black Monday' triggers stock sell-off*
	A1,A7	In China, a ghost town points to shifting economic fortunes
	A6	Is the economic launchpad closed?*
	A6	Don't freak out. It's a decline, not a meltdown
	A7	Q&A: The Chinese slowdown was expected, so why the panic?
	A8	How ordinary investors should deal with slide
	A9	China slowdown hurts already weak oil market
	A12	Global uncertainty
	A13	Stumbling stocks and presidential politics
8.26	A1,A15	An early rally on Wall Street falls apart late*
	A1,A15	A Fed rate increase this year no longer looks so certain
	A14	Obama's China conundrum, on full display
	A14	Big trouble in China? Yes. The verge of economic collapse? No.

	A16	keeping the stock market jitters at bay by listening to songs about time - and change
	A19	China's sparkle dims
8.27	A1,A18	Manic Monday hit small investors*
	A1,A18	For millions of Chinese, it's a bull market in cynicism
	A14	U.S. stock markets end skid with resounding day of gains
8.28	A14	Chairman of Everything'
	A14	Why the Fed may wait to raise its target interest rate
	A15	Volatile U.S. stocks extend rally, negating losses for the week
8.29	A11	Calm follows market storm
	A12	Fed officials: September rate increase remains uncertain
8.31	A13	Globalization at warp speed
9.1	A10	Stocks end month down, but oil surges nearly 9 percent
<i>Note: Articles with * are with infographics.</i>		
USA Today		
Date	Page	Title
8.12	1A	Oil, Yuan pummel market*
	1B	Apple poised for pain in China*
	1B	Weaker yuan could stall Fed rate plans
8.13	1A	5 ways China's yuan affects U.S. consumers
	1B	China fumbles; Wall St. stumbles
	3B	Currency war: what you need to know
	4B	Watch global market for signs of rebound
8.14-16	1B	Stock stabilize as China drama subsides
	2B	China's tumult a sign of free market growing pains
	2B	Why the banks are scared of China
	3B	China holds sway over commodity prices
8.19	1B	Wall Street says stock market is going nowhere fast*
8.21-23	1B	Dow sees its biggest drop in four years*
	1B	Apple , Disney fading fast among former supernovas
	3B	Wall Street focuses on message of the market
8.24	1A	Jittery Wall Street starts week on edge

	1B	S&P 500 stocks bearing brunt of pain*
	4B	What to do when markets fall
8.25	1A	1,000-point sell-off rocks stock market*
	1A	In wild stock swing, Apple sets the pace
	8A	Market's vital signs*
	1B	Fed may have excuse to hold on rate rise*
	1B	9 stocks that are still overvalued in the S&P*
	2B	Don't freak out, because stock carnage never lasts
	2B	China's problems ripple into U.S.
	2B	More market volatility may halt IPOs
	3B	GOP candidates blame stock slump on Fed, China
	3B	6 things you should know about stock market correction
	3B	How to stay calm during the craziness
	4B	Can U.S. data dispel growth fears?
8.26	1A	Wall St. not convinced correction is over
	1A	Online brokerages sway in stock storm
	1B	5 ways to stem the panic*
	2B	5 big stocks thrive in corrections
	2B	Fed role mysterious amid market mayhem
8.27	1A	Dow roars, rallies 620 points*
	1B	10 stocks give S&P \$173B shot in ARM*
	1B	Market's wild ride will get bumpier
	2B	September rate hike 'less compelling'
8.28	1B	Rebound picks up steam as Dow jumps 369 points
	1B	9 big, beat-up stocks look like epic bargains*
8.31	1B	What you should learn from the stock market's sell-off
9.1	1B	After ugly August, September squalls*
<i>Note: Articles with * are with infographics.</i>		
Financial Times Europe Edition		
Date	Page	Title
8.4	20	Malaysia stocks and ringgit lead EM rout*
8.5	20	Western banks step up renminbi debt issuance

8.6	2	IMF alert to snags in renminbi's progress
8.6	8	A middle way to manage the renminbi's rise
8.12	1	China risks clash with US as 1.9% devaluation surprises markets*
8.12	3	Beijing intervention fuels talk of currency wars
8.12	3	China's leaders act to break longstanding taboo*
8.12	3	Dollar jumps against won amid threat of volatility
8.12	8	China devaluation raises spectre of currency wars
8.12	9	China's renminbi move sets a risky precedent
8.12	13	Short View James Mackintosh*
8.12	22	China's dollar debts under pressure amid outflow fears*
8.12	22	Copper and oil hit by Beijing move as gold rises
8.12	23	Mood turns 'risk off' after China move catches investors off guard
8.12	23	Apple's retreat resumes amid worries over economic slowdown*
8.12	24	Beijing's salvo poised to heighten volatility*
8.12	24	Slowdown in China is going to be harder for its trading partners
8.12	24	Australia and NZ hit by renminbi move
8.13	1	China Seeks to calm global nerves over renminbi fall
8.13	3	IMF cautiously welcomes China currency move
8.13	11	Short view James Mackintosh*
8.13	20	China property boom days are over but risks of crisis remain low
8.13	20	Blue chips under pressure amid China fallout
8.13	21	Investors head for safety as fresh fall for renminbi sows uncertainty
8.13	22	Beijing's devaluation leaves existing trends intact - for now
8.13	22	China's neighbors hit multiyear forex lows
8.14	1	Rare defense by Chinese central bank reassures jittery markets in renminbi
8.14	3	Challenge for China after devaluation
8.14	6	China's currency reform struggles for credibility
8.14	13	Renminbi's fall rouses industry to new volatility*
8.14	20	Blue chips enter volatile chapter in China story*
8.14	21	Europe stocks and dollar gain as calm returns after devaluation
8.14	22	China would be wise to heed lesson of the Swiss National Bank

8.14	22	Weaker renminbi shortens odds of US rate rise*
8.15	6	Devaluation with Chinese characteristics
8.15	7	The radical central banker of Beijing
8.15	11	Long bonds rebound as deflationary fears stir*
8.15	11	Forex uncertainty rattles China's neighbors
8.15	12	Renminbi gap at multi-year high
8.15	12	Stocks struggle as volatile week leaves investors feeling cautious
8.15	20	Reading renminbi runes on China's economic problems*
8.17	3	China's fiscal challenges extend far beyond currency*
8.18	1	Datawatch*
8.18	16	Banks sanguine on renminbi 'teething trouble'
8.18	25	Stocks in hesitant mood as oil and metals prices fall further
8.18	26	Beijing turns up the heat on yen and euro*
8.19	1	Emerging markets rocked by \$1tn capital flight as confidence slumps*
8.19	7	A currency skirmish that was not made in China
8.19	11	Short view James Mackintosh*
8.19	20	Stocks rout puts Beijing rescue effort in doubt
8.19	22	Cooper at six-year low as China fears grow
8.20	2	Currencies lose firepower as effective trade weapon*
8.20	5	Weakened foundations*
8.20	5	A 'market reform' in the national interest
8.20	21	Investors seek safety in sovereign bonds after Shanghai shenanigans
8.20	22	Kazakhstan devalues as 'contagion' stirs
8.21	1	China's devaluation triggers dramatic falls in emerging markets currencies
8.21	13	Short view James Mackintosh*
8.21	22	Shanghai's large wring vie with devaluation concerns
8.21	23	Bruising session for stocks amid EM turmoil and China sell-off
8.21	24	Renminbi boost for China commodity producers*
8.22	1	Global stocks suffer sell-off as fears intensify over Chinese slowdown*
8.22	7	The Chinese model is nearing its end

8.22	9	China headly the ideal model for market behavior
8.22	11	Torrid times on horizon for EM economies*
8.22	12	US equities dive further as signs of weakness in China push oil down
8.25	1	Global stocks sell-off as China's 'Black Monday' darkens markets*
8.25	2	Fears intensify but panic buttons avoided*
8.25	3	Beijing capitulates following \$200bn equities intervention
8.25	3	Sell-off clouds outlook for US interest rate rise
8.25	8	Black Monday highlights Beijing's hard choices
8.25	13	Short view James Mackintosh*
8.25	24	Stock sell-off highlights Beijing's dilemma*
8.25	24	Divergent monetary policies could imperil fragile global growth
8.26	1	Beijing cuts interest rates in bid to revive economy
8.26	2	Rout puts premier's position in jeopardy
8.26	2	Till they drop Belt-tightening a distant prospect for Shanghai shoppers
8.26	6	China's leaders had no choice but to ditch the old model
8.26	7	How to do business without western rules
8.26	7	Why worries about China make sense*
8.26	11	Short view James Mackintosh*
8.26	13	Volatility throws spanner into the IPO works*
8.26	21	Shares rebound after Beijing opts for rate cut to shore up economy
8.27	1	Leading Fed official says case for rate rise is now 'less compelling'
8.27	1	Datawatch: China's contribution to global growth*
8.27	7	China's push-me-pull-you policies leave the world reeling
8.27	20	Contagion from EM currency storm offers investment openings
8.27	21	Confidence in short supply after latest bout of China-led nerves
8.28	1	Datawatch: Chinese stock market*
8.28	24	China devaluation stirs disinflation fears that are difficult to slay
8.29	2	Jeremiahs have their day as China shales global markets
8.29	5	Credibility on the line
8.29	11	A correction lacking the element of fear*
8.29	11	ETF providers call for rethink of trading limits

8.29	12	Dramatic week ends in recovery for stocks and a degree of calm
8.31	1	China ditches mass share buys after \$200bn two-month spree
8.31	3	China turmoil adds to Fed jitters as US rate rise decision looms
8.31	7	China's problem is the economy itself, not the market sell-off
8.31	14	Volatility poses questions for investor protection
9.1	1	Emerging market currency wars threaten to cut back world trade
9.1	24	Equities worldwide pulled down by China
<i>Note: Articles with * are with infographics.</i>		
South China Morning Post		
Date	Page	Title
8.3	B2	Asian currencies may yet plumb new lows
8.5	A11	A wild ride, for now
8.5	B2	Hope dims for 2015 inclusion of yuan in IMF's SDR basket
8.6	A3	IMF may delay adopting yuan but review to go on
8.6	B1	IMF delay on yuan has no impact on forex
8.10	B2	Currencies must adapt if they want to survive
8.10	B12	Best of a bad currency basket sees dollar bulls sitting pretty*
8.12	A1	Devaluation sparks fear of currency war*
8.12	B1	Devalued yuan sees winners and loser
8.12	B1/B2	Weaker yuan is China's economic safety net
8.13	A1	Devaluation rerun jolts markets*
8.13	A10	Yuan devaluation part of reforms
8.13	B1	Beijing's currency bazooka will only backfire*
8.13	B3	Yuan may upset airline profit hopes
8.14	A1	Yuan to stay strong in the long run, PBOC says
8.14	A3	Beijing to open up forex market
8.14	B1	Devalued yuan to hit retail sector
8.14	B2	Chart of the day: USD – Yuan*
8.14	B3	Bohai leasing to gain from cheaper yuan
8.14	B4	Wrong-footed investors weigh impact of yuan fall
8.14	B8	Rebalancing act
8.15	A3	Yuan rebounds but investors head for the exits

8.15	B1	PBOC reassurances see yuan stabilize after rout
8.15	B1	Developers not likely to suffer from yuan fall
8.15	B2	Chart of the day: finding the new norm*
8.15	B2	How yuan devaluation makes or breaks Japan
8.16	A2	How they see it Beijing's devaluation of the yuan
8.16	A3	Beijing close to currency float: IMF
8.16	A9	The risks and benefits of revaluing the yuan
8.17	B1	PBOC economist sees two-way volatility for yuan
8.17	B4	A fading glow*
8.17	B4	Yuan fixing becomes obsession for traders
8.17	B10	China's devaluation pointing to another economic crisis*
8.18	B1	Devaluation spires mainland firms to mull domestic debt
8.18	B2	Surprise yuan move opens buying window
8.18	B2	Cost of a weaker yuan may outweigh benefits for China
8.18	B8	PBOC beat for tuning yuan
8.19	A13	IMF gives Beijing room to manoeuvre with yuan delay
8.19	B1	Mainland markets tumble in late trade
8.19	P1/p2	Yuan fall to boost overseas purchases
8.20	A3	Hong Kong's status as yuan hub under threat
8.20	B1	PBOC pumps 110B yuan in second injection
8.20	B2	Yuan financing on the rise for China's airlines
8.20	B2	Chinese shares face rerating pressure on yuan depreciation
8.20	B3	China overseas land mulls hedging against weak yuan
8.21	B1	Yuan unlikely to fall further, says Chan
8.21	B3	IMF extends SDR review deadline by 9 months
8.22	B3	Dollar drops as risk aversion rises
8.24	B2	PBOC and Fed moves trap Asian Currencies
8.25	A1	Asia to Wall St., China meltdown goes global*
8.25	A4	A bad case of contagion
8.25	A14	Market meltdown
8.25	B1/B2	Asian currencies fall on China woes
8.25	B1	Frantic selling batters shares*
8.25	B2	Chart of the day: falling yuan won't support growth*

8.25	B2	World looks to China to stop equities rout
8.25	B2	Fears over crisis in emerging economies may be overblown
8.25	B8	Why a global currency war is the last thing that China needs
8.26	A1/A3	China cuts rates in bid to halt stock turmoil*
8.26	A3	There's more to the slump than china: analysts
8.26	A11	Don't blame China for the carnage in global markets
8.26	B1	Yuan in a liquidity crunch as investors pull out
8.26	B1	Stock sell-off continues as Beijing stays out
8.26	B2	Stock rout threatens Fed's rate rise plans
8.26	B2	Weakening economic fundamentals to blame for sell-offs
8.26	B10	China's economic trilemma is creating a dilemma for Japan
8.27	A12	Reforms key to calmer markets
8.27	B1	More reforms called for Qianhai
8.27	B1/B2	Mainland stocks slow decline after cut in rates
8.27	B1	China's just opened market is not to blame for meltdown*
8.27	B2	Chart of the day: Turbulent times*
8.27	B8	Market madness
8.27	B8	Why blame china for the funk over global economic malaise
8.28	A1	Two more Citic securities chiefs named in bribe
8.28	B1	Strong buying lifts mainland indices
8.28	B8	Time for optimism
8.29	A1	Market probe may widen as warning issues
8.29	B1	Late falls hit HK despite China rise
8.29	B2	Chart of the day: stability returns to currencies
8.29	B2	Why china blamed for new financial crisis
8.29	B2	Guessing game on firms vulnerable to yuan depreciation
8.29	B3	Yuan volatility seen in BOC, BOCHK results
8.29	B4	Market turmoil offers good time for start-ups
8.30	A7	Stock turmoil slows Kowloon flat sales
8.31	A3	Securities regulator vows to act against rogue officials
8.31	B4	Yuan crunch shows crack in system
8.31	B12	No way out
8.31	B12	Bad governance compounds problems

Professional Project Proposal:

The Use of Infographics in Newspapers'

Business Reporting about the

Global Stock Market Swing

Zhou Hang

Missouri School of Journalism

December 15, 2015

Introduction

In August 2015, China's central bank devalued its official currency the renminbi, or yuan, nearly 2 percent, causing the biggest one-day loss against the U.S. dollar in nearly two decades. This unusual behavior provoked speculation that the world's second largest economy was slowing, and concern led to a massive sell-off on global stock markets, including those in Asia, Europe and the United States.

On Aug. 24, 2015, China's Shanghai Composite Index declined 8.5 percent, wiping out all its yearly gains. The state news agency Xinhua tweeted that it was "Black Monday!" In Europe, Britain's FTSE 100 index, Germany's DAX index and the Stoxx Europe 600 index all fell more than 4.5 percent. In the U.S., the Dow Jones Industrial Average plummeted more than 1,100 points in August, a fall of 6.6 percent. That's the biggest percentage drop for the Dow since May 2010.

This major economic event attracted worldwide attention. News outlets and business journalists reported it thoroughly, as it had many ramifications on both the U.S. and global economy. *CNN Money* reported that because the Chinese government normally keeps its currency's value pegged to the U.S. dollar, the surprise drop set off a wave of selling in global stock market. *The Street* said China now has "unprecedented" influence on Federal Reserve and U.S. monetary policy. *Bloomberg* even asked in its report "Could China's Yuan Devaluation Spark a New Financial Crisis?"

Understanding the implications of the devaluation of the yuan is important because back in August, there was speculation that the International Monetary Fund was likely to add the currency to its global monetary reserve basket. The resulting market volatility to last August may result in worries about the global financial market,

especially fears of a “currency war” that other nations would follow China to make their exported goods cheaper on the world market.

On Nov. 30, 2015, the International Monetary Fund officially agreed to add the Chinese yuan to its reserve currency basket, known as Special Drawing Rights (SDR). Therefore, now it is timely to conduct an analysis about how media reported the market swing created by the devaluation of the currency and its global influence.

Traditionally, news outlets use text, photos and videos for reporting. With the development of graphic technology and data reporting, information graphics, or infographics, are increasingly used to relay information on complex financial topics. This new form is popular because the viewer can study a visual piece to gain more knowledge about the news development. Since the 1980s, infographics have been used in newspapers. However, few studies have been done to analyze the information and symbols in infographics and how they work together with text to better tell a story.

This professional analysis will examine infographics produced by several national newspapers related to the stock market swing from August 2015 to September 2015. It will attempt to answer this question: what are the ideas or concepts about finance that are conveyed through infographics in newspapers’ reporting about the August 2015 stock market swing?

This proposal has two parts: a professional skills component and analysis component. The professional skills review talks about the internship that will go together with the project. In the analysis, the literature review examines previous related research and literature to provide a foundation for new research. In considering the definition and

development of infographics, the review further looks at infographics as a storytelling method in business and journalism.

The project also considers previous studies about the 2008 economic crisis, which will inform this analysis in both theoretical framework and method. Finally, it will review the research methodology to be used in the analysis.

The Professional Skills Component

I have been accepted for participation in the Washington Program for the spring semester in 2016 and received a scholarship from the Graduate Studies office. I will finish this part of my project by interning at Al Jazeera in Washington, D.C.

I will work for the English program ‘The Stream’ at Al Jazeera. This job requires me to work a minimum 30 hours per week for at least 14 weeks starting in January 2016. I’m expecting to intern as a reporter and associate producer covering international and political issues. My daily duties may include conducting research, interviewing and original newswriting. Hopefully, I will have an opportunity to work on infographics.

My career goal is to become a multimedia journalist covering international business and politics. Al Jazeera as one of the largest news organizations in the world and attracts me with its international reporting reputation and influence. So, this internship definitely fits my long-term career plan. The internship will be a meaningful opportunity for me to get more professional experience in reporting by learning from the best journalists and producers in Washington, D.C. The internship can also enhance my interview, writing and research skills.

Meanwhile, this internship will afford me a chance to study the use of infographics in business reporting about the global stock market. In *The Stream*, infographics are also commonly used to show the discussion landscape on social media, such as Twitter and Facebook. They will add more visual elements to stories and help audiences better understand the topic.

The materials that will be included in the final project report are a review of my learnings during the internship and my weekly field notes, the evaluation about my work product and their physical evidence, such as links, articles, social posts, PowerPoint slides, etc.

I have had extensive experience in news reporting and editing. Currently, I'm working as an assistant producer of *Global Journalist*, a radio and television broadcast on KBIA, a National Public Radio affiliate in Missouri. I also had an internship at *Bloomberg Businessweek* in Beijing and worked as an enterprise reporter for the *Missourian*, the local community daily.

These experiences helped me develop skills of pitching stories, conducting research and interviews and writing with AP Style. They also taught me how to work under deadline pressure. Additionally, by taking classes such as News Reporting, the Fundamentals of TV, Radio and Photojournalism and Multimedia Design, I'm also experienced in multimedia news production.

Professor Barbara Cochran, Curtis B. Hurley chair in public affairs journalism and Washington program director, will supervise my project in Washington. She also is a member of my project committee. She will be helping organize weekly seminars, and provide continuing oversight.

The Analysis Component

Literature Review

Definition of infographics and its usage

Infographic is the abbreviation of “information graphic” (Lankow, Crooks, & Ritchie, 2012, p. 20). It can also be called as “information visualization (InfoVis) or data visualization” (Stasko, 2010, as cited in Siricharoen, 2013).

Different scholars offer different definitions to infographics, such as that an infographic “is a visualization of data or ideas that tries to convey complex information to an audience in a manner that can be quickly consumed and easily understood” (Smiciklas, 2012, p. 3). But among all the different given definitions, “visual, content and knowledge” are the three key elements (Siricharoen, 2013). An infographic can be a number of elements combined with type to tell a story.

Infographics were first used in the early 1980s with the advent of color and as newspaper design was first used as a tool to make things clear. *USA Today* led the way during what was termed a graphics revolution, but newspapers such as the *St. Petersburg Times*, *Los Angeles Times* and *Chicago Tribune* preferred this use on new Macintosh computers, which made data visualization more possible with its revolutionary graphics interface. That made graphics more possible for a new group of graphic specialists.

Infographics were simply used to assist journalists to report. Especially for newspapers, infographics can provide much more detailed information in a limited space (Siricharoen, 2013).

USA Today, launched in 1982, is regarded as the originator and leader in the movement of using infographics among U.S. newspapers (Siricharoen, 2013; Tankard,

1989). Lott (1994) noted that *USA Today* used infographics at the bottom of each section's front page as well as throughout the newspaper every day. After the success of *USA Today*, editors of other U.S. newspapers also realized the potential of infographics. In the next decade after *USA Today*'s launch, the usage of visual elements in storytelling totally changed the look of American newspapers (Utt & Pasternack, 1993).

Several studies have been done to examine the reasons why newspapers now use infographics more often than ever. In general, the reasons found by those studies can be categorized into external factors and internal needs.

External factors include the influence of *USA Today*, the development of technology (Smith & Hajash, 1988) and more severe market competition between newspapers (Kenney & Lacy, 1987). The updated technologies of the Macintosh systems (Lott, 1994), graphics wires, electronic scanning and satellite transmission systems (Utt & Pasternack, 1989) helped newspapers develop more infographics themselves. Infographic service systems like *Associated Press Graphics*, *Knight-Ridder Tribute News Graphics*, *New York Times Computer Graphics*, and *Gannett News Service* also made infographics more accessible to newspapers (Utt & Pasternack, 1993; Utt & Pasternack, 2000).

Internally, newspaper editors are more aware of infographics (Smith & Hajash, 1988). They hope the use of infographics can supplement text, help readers better understand stories and make the look of their newspapers more attractive (Utt & Pasternack, 1993; Utt & Pasternack, 2000).

Another internal need is that infographics can be used to help serve certain goals of newspapers. One study under the circumstance of general elections in 2000 found that

public journalism would use more graphic elements to cover issues, analyze and offer contact information than traditional ones. This finding showed that visual elements can and do convey meanings that are consistent with public journalism (Coleman & Wasike, 2004).

Change of newspapers and the development of infographics

Utt and Pasternack (1989) found that, by 1983, more color was being used on the front pages of U.S. daily newspapers. Half used four-color photographs on Page 1 regularly and more than half used spot color every day.

However, Smith and Hajash (1988) found that students loved newspapers with color, and the color did not lessen the newspaper's credibility. When evaluating the newspaper, readers may pay attention to other, non-design factors.

Additionally, infographics became a regular feature in newspapers. A 1987 study (Kenney & Lacy, 1987) found that graphics consumed 27 percent of total space on newspaper front pages. Smith and Hajash (1988) also discovered that, the total 210 studied printed editions of 30 U.S. daily newspapers published during one week in 1986 has an average number of 31.56 infographics per newspaper and 4.51 per edition. In 1991, about six infographics were used in the entire paper every day in more than one-third of the studied newspapers (Utt & Pasternack, 1993).

Maps, bar charts, line charts and pie charts are the most commonly used infographic forms in newspapers (Siricharoen, 2013; Tankard, 1987; Utt & Pasternack, 1993), and most of the infographics are distributed in newspaper sections like business/economics, weather and inside news pages (Smith & Hajash, 1988; Utt &

Pasternack, 1993). Based on usability, the types of infographics can also be categorized as statistical based, timeline based, process based and geography based (Siricharoen, 2013).

Software advances and increased training created more complex characteristics. As newspapers struggled and shrank in number of pages and newshole, the number of infographics decreased in all sections of newspapers, particularly in the use of bar charts, pictorial graphics and 3D graphics. But Utt and Pasternak (2000) noted that the few information graphics used were “better” -- more complex and content driven -- in today’s newspapers.

As more content moved online, infographics also evolved with the digital environment. Technologies like HTML5 can also make infographics more interesting and interactive (Siricharoen, 2013). Interactive infographics can help online news media offer content and service that print edition cannot provide, which can be referred as “added values” (Schroeder, 2004). With the help of computer software, more colorful and beautiful infographics can be created faster and easier. From this aspect, new interactive infographics can be a valuable study area for later research.

Other countries also experienced the same transition. One study (Bekhit, 2009) found that even though newspapers in the United Arab Emirates newspapers used fewer infographics on their front pages, the general number of infographics still increased. One study (Schroeder, 2004) found nearly all the surveyed news sites in Spain offered interactive infographics. Some of the news sites were recognized internationally for that.

In conclusion, the use of infographics in newspapers has evolved steadily over 30 years to meet reader needs. And because of the impact of globalization and the Internet (Bekhit, 2009), it also becomes a global trend.

Telling business stories with Infographics

Infographics in newspapers do more than complement stories. They add storytelling value and meaning. Many studies reflect this. Segel and Heer (2010) identify the distinct genres of visual storytelling from 58 visualization samples in their research.

The storytelling potential makes infographics reach wider areas. During major political events, such as general elections, the use of infographics can help newspapers better inform citizens about the candidates and election results (Coleman & Wasike, 2004).

In the real business world, more and more companies and organizations are using infographics as a tool to communicate with their audiences (Smiciklas, 2012) and building their own brands (Lankow, Crooks & Ritchie, 2012). Some companies also use infographics in their financial reports and send them to company officials and news outlets.

Those graphics enhance business sections. But the content and meanings in those infographics have long been ignored.

Political economy theory

According to Vincent Mosco (2009, p.1), political economy is defined as “the study of the social relations, particularly the power relations, that mutually constitute the

production, distribution and consumption of resources, including communication resource.”

McChesney (2000) and William (2003) argue that media are impacted by economic factors and market forces. Media outlets essentially operate like an economic institution in the business of cultural production.

The political economy of media involves media ownership, the media market and financial support (Ogenga, 2010). In a broader sense, the political economy of communication is concerned with the relationship between communication and capitalism. But another aspect of political economy of communication is a study of how outside political and economic factors affect the behavior and content of media (McChesney, 2000). Because media in capitalism also aim to maximize profits, their product or content may be influenced or shaped by corporate interests (Ogenga, 2010).

This is directly related to the research questions of this project. This project takes infographics as content produced by media and will examine the meanings in those infographics and texts. In the context of the stock market swing, interests of the media owners may have an effect on the meaning there.

According to McChesney (2000), the political economy of communication can be mostly applied to studies in capitalist societies with commercial media systems. United States is considered one of the mature capitalist societies and has a highly commercialized communication industry. U.S. newspapers and the news they produced are undoubtedly intertwined with political economic power (Chakravartty & Schiller, 2010). The general setting of this research is the recent stock market swing in the U.S. It

was a major economic event among capitalist societies. Because of this, the political economy of communication can be used as a framework.

Use of political economic analysis to examine journalism and media

Since the 1940s, much research has been done using the theory of political economy (Mosco, 2009, p.1). During major political or economic events, scholars often use this theory to analyze media performance.

In the late summer of 2008, an economic crisis hit the United States severely and affected the global financial system. This economic crisis in 2008 is taken as “a systemic crisis” of neoliberal capitalism (Kotz, 2009). Neoliberal capitalism started to form at the late 1970s. One of its key features is the idea of “free market” (Kotz, 2009). The popularity of neoliberal capitalism leads to a deregulated market, unrestrained competition between large companies and greater inequality within the society (Kotz, 2009). Neoliberalism also contends that markets can use new technologies to solve major social problems (McChesney, 2001).

Some scholars examined the performance of journalism during the crisis. Paul Manning’s (2013) research criticizes that financial journalism failed to warn people about the coming disaster. Barth and Landsman (2010) also claim the insufficient transparency of information in financial reporting for investors constitutes a problem. In this sense, journalism is not only covering and reflecting the reality of the crisis, but becomes part of the general conversation (Chakravartty & Schiller, 2010).

Besides traditional media, the political economy theory can be applied to new media as well. After examining previous research, Robin Mansell (2004) suggests a

revitalization of political economy in new media. Scholars should pay attention to the way power is embedded and how citizenship and democracy are highlighted.

Even though many media scholars use political economy theory to examine the general administrative operation of media institutions, some studies also emphasize news production (Havens, Lotz & Tinic, 2009).

Jesse Owen Hearn-Branaman (2009) uses Herman and Chomsky's Propaganda Model filters, which are grounded in a long tradition of political economic research, to analyze the political economy of news media production in the People's Republic of China. She finds despite the fact that China has a different political system than western countries, its news media system still has a capitalist base similar to the U.S.

Fredrick Ogenga (2010) studies the political economy of the Kenyan media. He finds that the content produced by Kenyan media is shaped by the political and economic environment. Audiences also play an active role in meaning construction.

Carson (2014) studies the investigative reporting from the print winners of the Walkley Awards and Australian newspapers. After analyzing their news content, he discovers an absence of investigations done by these newspapers to detect and expose corporate transgressions in Australian investigative newspapers' business content. The political economy theory helps him link that absence to the political and economic environments of newspapers. He concludes that with a decline in revenues and a heavier reliance on commercial advertising, newspapers are less likely to report stories that would damage their relationships with business.

Therefore, the concept of political economy of communication is important for this study and is directly relevant. It can act as a guideline for answering the previous research questions.

Conclusion

Numerous previous studies have been done on infographics. Most involve are quantitative research focused on the actual effects of using infographics in newspapers. This includes helping readers recall or understand the stories in newspapers.

There are several qualitative research studies about the workflow of using infographics in newspapers and how editors and producers approach that workflow. But few involve infographics as media content, instead trying to study the symbols and meanings within them.

The above literature inspired the assumption that when covering the latest market swing, newspapers are more likely to use infographics together with text to tell a story to their audiences. Those infographics may also reflect political economic and cultural changes at that time. Those conveyed meanings can be related to neoliberal capitalism. But no previous academic research has explored this topic and examined those infographics. Therefore, based on the literature, the specific research questions that this project will try to give answers to are:

Q1. What are primary concepts and meanings conveyed through these financial infographics as reported by various news outlets covering the yuan devaluation of August 2015 and resulting market volatility? Are there any similarities and differences between various news outlets?

Q2. What patterns emerge (such as the use of certain symbols, words and images) in those infographics and how are they represented through visual representation techniques?

Methodology

Content analysis

To answer the proposed research questions, content analysis will be used in this study. Content analysis is used mostly for studies of the way social issues are represented in mass media. Visual analysis, as part of content analysis, focuses more on the visual representations (Jewitt & VanLeeuwen, 2001, p.1). It is a systematic, observational qualitative method that can be used to test hypotheses about how media represent events and situations (Bell, 2001).

Content is still vital for infographics. Concepts and meanings conveyed in infographics are normally abstract and lack obvious existing representations (Gershon & Page, 2001). Therefore, symbols with complex social codes are used. To study the concepts and meanings, visual analysis can be used to help search for patterns and meanings (Collier, 2001) of those visual elements, and help to decipher the metaphors for representing information.

To increase reliability and validity, Matthes and Kohring (2008) developed an alternative method in the content analysis of media frames. They propose that frame elements are systematically grouped in a specific way. The pattern of frame elements can be identified using cluster analysis across several texts. Their approach will inform the method that will be used in this study.

Sample selection

The body of infographics to be analyzed will comprise infographics in major national newspapers' print business section in different regions of the world, including *The New York Times*, *Wall Street Journal*, *Financial Times* and *South Morning China Post*. The number of samples depends on how many actual infographics that can be gathered from the field. Ideally, more than five infographics from each newspaper will be used for analysis.

These newspapers were chosen because they are widely recognized as major national newspapers. They all have a business section and have a reputation for providing high-quality financial news content. And newspapers like the *New York Times* (Segel & Heer, 2010) have regularly used dynamic infographics in their news reporting. They also covered the major markets that affected in the global stock market swing. Therefore, they can be credible and representative sources to collect infographic and text samples.

The analysis will mainly focus on the dynamic infographics and written stories in these newspapers' printed editions and exclude those on their websites. This is because that online infographics may have different components and may involve more interactive elements. Regarding the use of a common denominator, it's misleading to compare printed infographics with online ones.

The time frame of those selected infographics is from Aug. 1 to Sept. 1, 2015. This time frame includes the time when China devaluated its currency nearly 2 percent and when global stock markets fell dramatically, wiping out all gains made in 2015.

Therefore, selecting this specific time frame can help narrow down the number of the infographics to be examined, but still can ensure their relevance.

Moreover, infographics normally are not used alone. Most of the time, they are used to accompany stories. For this research, the meanings in stories will also be taken into account. Moreover, in infographics, there still can be some texts (titles, notes and captions). These texts are part of the infographics, so their meanings will also be examined together with other visual elements.

Analyzing procedure and expected results

When analyzing the infographics, Collier's (2001) basic model for visual analysis will be used. First, all the infographics will be taken as a whole to discover some repeating or missing patterns. They can be certain symbols, texts and images. Then, they will be coded and make generalizations about their similarities and differences. An inventory of the categories of these patterns can be used to help the analysis. After that, meanings conveyed by those visual records will be found and the political economic approach will be used to produce deeper analysis.

As expected results, meanings related to the economic crisis, like stock markets, currency and finance system might be found conveyed by the infographics. These meanings can be constructed by the use of certain symbols, words and images in the infographics, and they may be related to the neoliberal trend in global media.

The chosen newspapers may have different ownerships, business mechanisms and news philosophies. As a result, the meanings conveyed by each newspaper's infographics might have slight differences. These differences can be an important part of the final

result. But because they are covering the same economic event, the infographics produced must share some common meanings and practice. These similarities are the main focus of the result.

Overall, for this research, visual analysis can help answer the research questions in a systematic and academic way. After taking the qualitative research class, I'm comfortable and prepared to use this method for this project. But visual analysis itself still has some unavoidable limitations. Visual elements such as infographics normally have complex social meanings. This means that we can only study those simple, widely recognized social categories (Bell, 2001). This can also be the limitation of this research.

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