Assignment 3: RSS Feeds Predict 453 Section 55 Spring Quarter School of Continuing Studies Northwestern University Daniel Prusinski In compliance for Master of Science Predictive Analytics Bachelor of Science Business Marketing

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Jordan Times RSS Feed

Insecurity, war, and crises are all common attributes for the Middle East. Given the West's dependence on oil and gas, news from this part of the world ultimately impacts prices here in the US.

While monitoring the RSS feed, I found the following information valuable and interesting (please reference appendix 1 for the content from the feed): "Syria urges UN action against Al Qaeda rebels" and "UN concerned as more Syrians return home from Jordan" - These articles highlighted the involvement of Al Qaeda loyal militias currently in the country and Syrians heading back home. In addition, the article listed the following figures: 70,000 killed in the current conflict, 1 million Syrian refugees in neighboring countries, 2 million internally displaced persons. Syrian air strikes have targeted bakeries and hospitals and are responsible for killing 4,300 civilians since July of 2012. Around 300 Syrians are heading back to Syria every day, and Jordan is hosting 500,000 Syrian refugees, it is projected that there will be 1.3 million refugees in Jordan by the years end. "Iraqis prepare for first vote since US withdrawal" - This article highlighted the attitudes of local Iragis on the first totally independent election since the withdrawal. Overall, many civilians have a caustic attitude and the country as a whole is in shambles. This validates instability and continual crisis, which leads to unpredictable oil and gas prices.

Through this RSS feed, I am able to quickly gather pertinent news headlines and statistics for the whole Middle East and ensuing conflicts.

Relief Web RSS Feed

Billions of dollars are spent annually on Relief and Aid throughout the world. Monitoring the disasters, projects, and agencies is helpful for job outlook, sector ebbs and flows, and future opportunities.

While monitoring the RSS feed, I found the following information valuable and interesting (please reference appendix 2 for the content from the feed): "World: Water Supply and Section: Section Results Profile" – Safe drinking water for the world is a Millennium Goal that is ahead of schedule, but the sanitation goal lags behind schedule. As a result of this information, the World Bank is going to finance more projects with an emphasis on meeting the sanitation goal. For those looking for development jobs the sanitation sector will have future opportunities. "World: Managing Disaster Risks for Resilient Development" – 2011 experienced the costliest year for natural disasters at 380 billion dollars. From 1980-2011, there have been more than 2.5 million deaths related to natural disaster. Water based disasters account for 75% of the deaths, and given the global warming trend this percentage will grow. The World Bank has financed 92 disaster prevention programs throughout the world between 2008-2012 worth 6.5 billion dollars. In addition, 2.7 billion dollars was spent on reconstruction efforts. Countries that have benefited massively from these programs include Sri Lanka, Ethiopia, Bangladesh, Togo, and Vietnam.

Through this RSS feed, I am able to quickly gather pertinent news headlines and statistics for the development and aid industry.

Banking Analytics Blog RSS Feed

Technology and analytics are often joined at the hip. Following articles in regard to business development and technology helps one to stay competitive in analytics.

While monitoring the RSS feed, I found the following information valuable and interesting (please reference appendix 3 for the content from the feed): "Customer – Centric Innovations in Fraud Analytics" – Building advanced fraud models that take into account customer behavior is a great way to reduce false positives. This new technique/technology is called Behavior Sorted List Technology. There is a conference at the end of April where presentation will be made on this topic. "Challenging Assumptions About Consumer Deleveraging in the US" – Since the recession, most Americans have reduced revolving debt. The top end of the FICO Score consumers are an anomaly in that they have increased revolving debt. There are different levels of optimism between FICO Score consumers for the economic recovery. "New Map Identifies US Card Fraud Hotspots" – FICO has shared an interactive map that shows credit and debit fraud trends throughout the US every day. California, Florida and New York have the greatest amount of fraud. Trends are continually changing as well as fraud techniques. The interactive map allows for a much deeper analysis into specific aspects of fraud, and has many different layers.

Through this RSS feed, I am able to quickly gather pertinent news headlines and statistics for my career's industry.

Appendix 1 – Jordan Times RSS Feed

http://www.google.com/reader/view/#stream/feed%2Fhttp%3A%2F%2Ffeeds.feedburner.com%2FTheJordanTimes-LatestNews

DAMASCUS — Syria Thursday demanded that the UN slap sanctions on a jihadist rebel group after it pledged allegiance to Al Qaeda, as the opposition accused regime forces of "savage" killings in the country's south.

The demand by Damascus that the UN class Al Nusra Front as an Al Qaeda-linked group came as G-8 Foreign Ministers Meeting in London said they were "appalled" at the spiralling violence but made no mention of supplying arms to the rebels.

In a letter to the United Nations, Syria's foreign ministry said it "expects the Security Council to fulfil its role and preserve global security", and class Al Nusra Front as an Al Qaeda-linked group, state news agency SANA reported.

A sanctions regime was introduced by the UN to punish individuals and entities linked to Al Qaeda, freezing their financial assets, banning them from travelling and imposing an embargo on arms destined for Al Qaeda.

There are currently 64 entities and 227 individuals on the list.

The regime's letter to the UN follows a pledge by Al Nusra Front on Wednesday of allegiance to Al Qaeda chief Ayman Al Zawahiri and support for his call for an Islamic state to be set up in Syria, increasing concerns by Western nations about weapons falling into the wrong hands.

On the battlefield, details emerged Thursday of fierce fighting for two towns in the southern Syrian province of Daraa in which monitors said dozens of people were killed, among them six children.

"At least six children, seven women, 16 rebel fighters, 16 other unidentified men and 12 army troops were killed on Wednesday, in fighting, shelling and summary executions waged after the army launched an assault on Al Sanamein and Ghabagheb," the observatory said.

GENEVA — More Syrian refugees are opting to return home from Jordan, with around 300 now crossing back into the war-ravaged country each day, the UN refugee agency said Friday, voicing deep concern for their safety.

UNHCR said it had seen an increase in the past 10 days in the number of people crossing from Jordan into Syria, although it stressed that a far larger number of Syrians continued to flood across the border in the opposite direction.

UNHCR Spokesperson Melissa Fleming explained that people were opting to return home for a number of reasons, including reports of improved security in a number of border villages, and to protect their property.

Many also want to reunite with family members or fetch left-behind relatives and bring them back to Jordan, Fleming told reporters in Geneva.

On average, 300 people a day had over the past week and a half decided to leave Jordan and return mainly to villages close to the border in the Syrian governorate of Daraa.

"A sizeable part of this governorate remains a battleground and UNHCR fears for the safety of the returnees, the vast majority of whom are families," said Fleming.

The agency "is very concerned that refugees are returning to areas blighted by shortages of food, lack of fuel and electricity and limited services," she said, also stressing that the security situation remains "volatile."

A week ago, the Jordanian government said that nearly 35,000 Syrian refugees had decided to return to Syria since the conflict in that country began in March 2011.

Fleming stressed that far more people are still fleeing the spiralling violence in Syria than opting to return to it, with some 2,000 people crossing from the war-torn country into Jordan on a daily basis.

BAGHDAD — Even the dead are not spared the campaigning for Iraq's upcoming local elections.

Brightly coloured placards blanket major streets and hang around the vast cemetery in the Shiite holy city of Najaf, appealing to the hundreds of mourners who stream through each day.

The April 20 vote for provincial governing councils will be the first election since the US military withdrawal in December 2011. Even though elections for federal positions such as prime minister and parliament are not scheduled until next year, this will nevertheless be a key test for Shiite Prime Minister Nouri Al Maliki's dominant political bloc.

Members of the police and army cast their ballots early in special voting on Saturday.

"I am looking for real change," said Ali Talib, a 27-year-old policeman who was voting for the first time at a heavily guarded school in Baghdad.

"This is the first election where we totally depend on ourselves to run and protect the election process."

The results will be an important gauge of support for various political blocs heading into 2014 national elections. Al Maliki has not ruled out seeking a third term next year despite charges from opponents that his administration is a dictatorship in the making.

A vote without major violence would be a victory in itself for the police and army, who face a reviving Al Qaeda insurgency.

Militants are making sure they are heard in the run-up to the polls. At least 13 candidates have been killed so far. In one attack earlier this month, a suicide bomber blew himself up at a lunch hosted by a Sunni candidate in the city of Bagouba. The candidate survived.

More than 8,000 candidates from a dizzying array of dozens of electoral blocs, including many little-known small parties, are in the running.

Appendix 2 – Relief Web RSS Feed

http://www.google.com/reader/view/feed/http://reliefweb.int/updates/rss.xml?source=ignitionformula ork#stream/feed%2Fhttp%3A%2F%2Freliefweb.int%2Fupdates%2Frss.xml

World: Water Supply and Sanitation: Sector Results Profile

Source: World Bank

Country: Azerbaijan, Benin, Chile, India, Kenya, Morocco, Nepal, Viet Nam, World, South Sudan (Republic of)

One target of the Millennium Development Goals is to halve the proportion of the population without access to safe drinking water and basic sanitation by 2015. The world met the water goal five years ahead of schedule, but access to sanitation still lags, hurting both human health and economies. In World Bank client countries, access to improved water sources increased from 73 percent in 1990 to to 86.4 percent in 2010, and access to improved sanitation from 42 percent to 56.3 percent. To continue delivering sustainable and efficient water and sanitation services, World Bank-financed projects will emphasize financial and environmental sustainability, impacts on poverty and gender, and address climate risk.

Challenge

In countries around the world, people have seen progress in the expansion of water and sanitation services, yet 780 million still live without access to improved water sources, and 2.5 billion lack access to safe sanitation. Only 63 percent of the world's population now has improved sanitation access, a figure projected to increase only to 67 percent by 2015, well below the 75 percent aim in the Millennium Development Goals.

Even those with access to water and sanitation often have to cope with poor service. Improving utilities' performance is crucial to ensure continuous service and lower levels of leakage, which affect both the quality and quantity of water available to end-users and the utility's financial sustainability. Social and financial considerations must also be addressed in the design, planning, and implementation of water and sanitation policies and facilities to keep services affordable for the poorest. Tariff policies and strategic financial planning involving governments, service providers, end-users, and donors are important to ensuring sustainable water and sanitation services for all.

Looking forward, these challenges will be exacerbated by growing competition for water resources as urban areas and populations grow, land use changes, and climate change increases. All of these issues are at the core of the water-energy-food nexus.

Solution

The following elements define the World Bank's approach:

Delivering development results: Offering a wide range of financial solutions, the Bank's operations are tailored to the needs and capacities of specific countries. For example, emergency loans provided in post-conflict or post-disaster situations help affected countries' institutions to rehabilitate critical infrastructure and respond to basic needs. In other countries, and with the ultimate goal to serve more people with sustainable water and sanitation services,

Bank support is focused on longer-term efforts to strengthen institutional capacities, including at decentralized level, and promote sustainable utilities.

Innovative solutions to complex situations: In connecting global knowledge and operational experience, the Bank brings lessons and emerging good practices learned in one country or region to other parts of the world. For example, with support from the Water Partnership Program (WPP), the Bank has championed the innovative Integrated Urban Water Management (IUWM) approach that was piloted in seven cities in Latin America over the last three years through investments and technical support. An IUWM approach was also recently used in Azerbaijan and is currently being piloted in Kenya. IUWM was the focus of the 2012 World Bank's flagship report for the water sector.

Analysis and advisory services: Knowledge production and dissemination and cross-support activities allow a deeper understanding of crosscutting issues such as decentralization, community participation, private sector participation, as well as a renewed focus on countries where water may constrain growth. Priorities include promoting pro-poor solutions and enhancing gender-balanced interventions, sustainable financing at project and sector level and climate change impacts. For instance, the Water and Sanitation Program (WSP), a multidonor partnership administered by the Bank, supports 19 sub-Saharan African governments and nine Asian governments in assessing the impacts of poor sanitation on national economies through the Economics of Sanitation Initiative.

Value for money: The World Bank helps governments improve their monitoring and evaluation systems, in order to enhance transparency and accountability and report on results and progress. For instance, at the utility level, the International Benchmarking Network (IBNET) initiative provides standardized performance indicators for 2,600 water and sanitation utilities, covering more than a quarter of the world's urban population in more than 100 countries. At the government level, public expenditure reviews (PERs) are undertaken to help the Bank's clients assess the effectiveness of public spending in the water and sanitation sector and prioritize policy options within and across sectors. An assessment of 15 PERs conducted in Sub-Saharan Africa highlighted capacity constraints and incomplete sector reform, opening the door for improvement in future activities.

"During periods of extreme water shortage, I have to walk to a nearby suburb two kilometers away to fetch water at KSh 50 [US60 cents] per 20-litre container" Isaac Ndirangu

Teenager in Kayole Soweto village outside Nairobi

Results

Since 2002, Bank-supported projects have provided 145 million people with improved access to water and 10 million people with improved access to sanitation. Some examples of results achieved with IDA and IBRD support are listed below:

Benin: Thanks to a series of Poverty Reduction Support Credits (PRSCs) (FY2006-2011), the water MDG target is likely to be met. Under the PRSC6, decentralization efforts were very successful and led many local governments to contract public private partnership arrangements for the management of village water systems, ensuring greater efficiency in service delivery and increased local ownership. The project reached over 57 percent of the rural population with access to improved water by 2010, from the original baseline value of 44 percent in 2006.

Appendix 3 – Banking Analytics Blog RSS Feed

http://www.google.com/reader/view/feed/http://reliefweb.int/updates/rss.xml?source=ignitionfork#stream/feed%2Fhttp%3A%2F%2Fonline.wsj.com%2Fxml%2Frss%2F3 7031.xml

Customer-Centric Innovations in Fraud Analytics

by Scott Zoldi

There's tremendous emphasis on increasing customer centricity in banking these days, and indeed a big focus of my fraud analytics team is developing "customer-focused" innovations. These analytic models go beyond focusing solely on the characteristics of typical fraud events; they're also built to improve learning of what typical customer behavior looks like in order to reduce declines of legitimate transactions—what we in the fraud world call false positives.

One such customer-focused fraud innovation is our patented Behavior Sorted List technology. It's designed to capture a customer's specific spend favorites, such as locations and merchants. As transactions occur, an iterative algorithm updates a rank-ordering of events within the card transaction profile to allow the determination of favorites. In 2013, we're updating all consortium models in FICO® Falcon® Fraud Manager 6 to include these lists, which will provide a material reduction in false positive rates.

Another customer-focused innovation uses a patent-pending streaming version of Latent Dirichlet Allocation (LDA) to summarize the customer's transactions into customer archetypes based on a global macro view. Using those customer archetypes, the model determines whether new, previously unseen transactional behavior should be viewed as typical or fraudulent. In other words, this analytic method can better distinguish between likely fraud and what's simply new behavior from a legitimate customer.

If you're interested in learning more, I invite you to join us for FICO World 2013 (Miami, April 30-May 3), and specifically my presentation on "Innovations in Fraud Analytics." In that session, I'll dive deeper into these and other customer-focused technologies. I'll also share specifics about the false positive reductions we've seen these methods provide at a given fraud detection rate—a huge bonus for banks trying to find that delicate balance between customer focus and keeping fraud in check.

New Map Identifies US Card Fraud Hotspots

I'm excited to share that we've just released an <u>interactive map</u> showing debit and credit card fraud trends in the US. The map identifies the points of compromise—that is, where the actual theft of card and PIN data occurred—based on data from <u>FICO® Card Alert Service</u>, which analyzes more than 65% of all US ATM transactions every day.

Click on the graphic to view the full map, or go to <u>ficousfraudmap.com</u>.

Looking at the map, two things stand out.

First, the map reinforces how widespread these financial crimes are. If you click on individual states, you'll find that 20 of them experienced an increase in credit card fraud last year. In particular, our map identified clusters of ATM fraud activity in California, Florida and the Northeast.

Of course, the locations of these increases and hotspots change every year—bringing me to my second point: fraud patterns are constantly shifting. This holds true not only for hotspot locations, but for the type of compromise as well. As I discussed in my <u>last post</u>, looking at overall volume of activity in 2012, we saw an increase in bank ATM fraud compared to the prior year. In fact, nearly half (46%) of all card skimming occurred at bank ATMs, versus 36% at retail point-of-sale (POS) terminals and 18% at white-label (non-bank) ATMs. This represents a shift from 2011, when 79% of skimming incidents occurred at POS terminals.

Note that the graphic above represents only a snippet of our fraud map. I encourage you to check out the full map by clicking on the graphic (or going directly to <u>ficousfraudmap.com</u>) and exploring its many layers. Besides the interactive map itself, we've included analysis of skimming trends over the last three years and several other useful resources. If you click on the Trends tab, for instance, I've provided insight into what's behind the shifting fraud patterns during this timeframe. The Resources tab includes research papers I've written about physical ATM security, managing card compromises and a host of other best practices.

Challenging Assumptions About Consumer Deleveraging in the US

by Andrew Jennings

Conventional wisdom holds that US consumers have been deleveraging—either voluntarily or involuntarily—since the recession of 2008-2009. While there is ample evidence that many consumers have, in fact, been deleveraging for the past five years, does that mean that all consumer segments have done so?

The data indicates that one large segment of US consumers has not curbed its appetite for revolving debt in the wake of the recession. Consumers at the high end of the FICO® Score range—people with FICO Scores from 800 to 850—increased their revolving balances from 2008 to 2010 and again from 2010 to 2012.

As the chart above indicates, it isn't just the 800-850 score range where consumers kept spending. Consumers in the 720-799 range essentially kept their revolving balances flat from 2008-2010 (there was actually a negligible decrease of just a few dollars per consumer) and then began hiking their revolving balances once again from 2010 to 2012.

Just as interesting is the fact that during this time when high-scoring consumers kept spending, lenders were actually making moves to reduce their risk exposure among these consumers. As the chart below indicates, from 2008 to 2010 lenders clamped down by making significant—some might even say dramatic—reductions in the credit lines of their highest-scoring customers.

These reductions were so significant that even as credit lines increased from 2010 to 2012, the average credit limit was still thousands of dollars below its pre-recession level.