對外合作組織與機構動態報導

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WHAT IS THE FUTURE OF COMPUTATIONAL JOURNALISM?

資訊新聞學的未來會是如何？

By Ian Chipman

What is the future of computational journalism?

Data science and algorithms are reshaping how the news is discovered and reported.

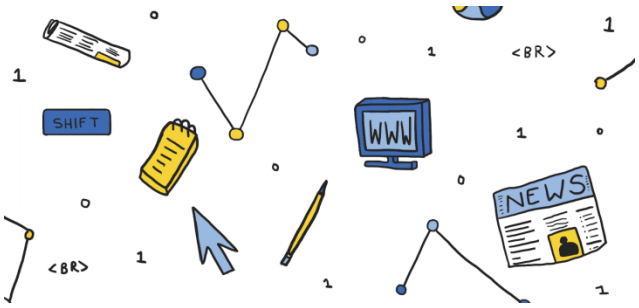
At a recent event bringing together voices from the School of Engineering and the School of

報告摘要(KEY INFORMATION)

1. 資訊科學與演算法正重塑新聞被發掘與發佈的方式。二位出自不同領域的史丹佛大學教授在一場談話中表示，迄今新聞素材的蒐集方式一向難以周全，常有一些地方性的議題受到忽視，往後如採用數據分析方式產製新聞，或許有機會改善現狀。
2. 106 年 12 月 6 日，美國總統川普於白宮發表四點聲明：承認耶路撒冷為以色列首都、已規劃將美國大使館遷移、此舉不會影響美國致力於中東和平的立場，以及副總統將前往中東各國訪問等。然而中東各國的微妙關係勢必會因此變化，對美國的外交立場也值得後續觀察。
3. 已知電力收購制度中可再生能源的購買期將於 2019 年結束，政府機關將如何因應「後電力收購時期」的問題，目前已有許多相關討論，科技發展方向也已逐漸明朗，包含太陽能板回收技術，以及結合現有熱能儲存技術之自用型太陽能技術等，值得後續關注。
4. 在外交政策成效不展的情況下，美國總統川普的亞洲之行顯然是為了拉高民眾的滿意度。然而，儘管川普在中國得到盛大的歡迎，也達成大筆金額的協議，美國內部有部分聲音表示此行其實成效甚微。
5. 去年九月底、十月初之間，在歐洲等地監測到低濃度的釕 106。對此事件，比利時核能研究中心與皇家氣象研究所發表分析報告指出，該核分裂產物釕 106 可能是從俄羅斯有許多核設施之某處擴散，因未發現其他核種，推斷應與反應爐事故無關。

Humanities and Sciences, two Stanford professors engaged in a moderated discussion about the evolving field of computational journalism.

Jay Hamilton, the Hearst Professor of Communication and director of the Journalism Program, and Maneesh Agrawala, professor of computer science and director of the Brown Institute for Media Innovation, shared their complementary perspectives on the many questions facing journalism today and where they might lead tomorrow.



The conversation centered on how converging social currents and disruptive technologies have roiled newsrooms on the local, national and international levels. Computational journalism, Hamilton said, can refer to the set of tools that journalists use to discover, tell or distribute stories. But it's also "reporting by, through and about algorithms." The Associated Press, for example, writes about 4,000 stories by algorithm each time companies' quarterly earnings reports come out — a massive increase from the 300 or so companies that can be covered by human reporters.

In addition to such computer-assisted reporting, Agrawala spoke about how computers can be used to synthesize audio and video stories and create visualizations that provide critical context for data. The two professors also spoke about the great need for journalists to find ways to hold algorithms — like the ones that curate our newsfeeds or influence public policies — accountable. "One of the questions that we face as a society is understanding some of the algorithms that are delivering information to us," Agrawala said.

Hamilton agreed, adding that the biggest problem he sees facing journalism right now are the stories that get missed due to the collapse of the business models of local newspapers. "If you look across the country, there are city councils that don't have a reporter covering them, there are school boards voting and making decisions and nobody is watching. So I think that's something where computational journalism can really make an impact," he said. "If you have a strong interest in engineering and data, try to help us figure out the stories that go untold, especially at the local level."

RRESIDENT TRUMP RECOGNIZES JERUSALEM AS ISRAEL'S CAPITAL

川普總統承認耶路撒冷為以色列首都

By Ken Koyama

Another grave event has come to shake the whole of the Middle East. On December 6, U.S. President Donald Trump in his speech at the White House recognized Jerusalem as Israel's capital and announced a plan to move the U.S. embassy in Tel Aviv to Jerusalem. In the relatively short speech, Trump made four points – (1) the United States recognizes Jerusalem as the capital of Israel, (2) Washington starts preparations for moving the U.S. embassy from Tel Aviv to Jerusalem, (3) the decision does not run counter to the U.S. commitment to peace in the Middle East, and (4) Vice President Mike Pence will tour the Middle East for talks with relevant countries.

While Israel has claimed Jerusalem as its capital, with the Palestinian Authority, Israel's counterpart in Middle East peace negotiations, seeking to build a nation with East Jerusalem as its capital, how to position or treat Jerusalem, the holy city for Judaism, Christianity and Islam, has been politically sensitive. Trump's predecessors had taken a very prudent attitude on the matter, considering the United States' position as a broker in the negotiations despite its basic support for Israel. In 1995, Congress enacted the Jerusalem Embassy Act to move the U.S. embassy from Tel Aviv to Jerusalem. However, Trump's predecessors postponed the decision on the move every six months due to their respective strategic considerations in accordance with the act.

In this sense, the decision by President Trump can be positioned as representing a big change in U.S. policy on the Middle East. In a bid to demonstrate Washington's priority given to peace in the Middle East, President Trump in his speech said this decision was not intended to reflect a departure from Washington's strong commitment to facilitating a lasting peace agreement. However, he fell short of indicating what to do on peace in the Middle East. The departure from the policy of refraining from favoring any specific party to the sensitive Middle East peace negotiations would lead the United States' position as a broker in the negotiations to be fundamentally damaged, many analysts say.

In fact, opposition to and concerns about the decision have grown among Palestinians, Arabs and Middle Eastern countries. In telephone talks with President Trump before the decision, Palestinian President Mahmoud Abbas was reportedly concerned that the U.S. embassy's move to Jerusalem would exert grave influences on the Middle East

peace process and regional stability. Jordan's King Abdullah II and Saudi Arabia's King Salman, who also received phone calls from President Trump on the decision, expressed concerns over adverse effects of the decision on stability in the Middle East. Public protests against the Trump decision have emerged in Arab society including among Palestinians, indicating growing anti-American sentiments. Future relevant developments have become a matter of grave concern.

DEVELOPMENTS IN RENEWABLE ENERGIES

可再生能源近期發展

By Yoshiaki Shibata

It is well-known that the purchase period of renewable energy under the Feed-in-Tariff (FIT) system will end from 2019 for some facilities, and the response to the "post-FIT" period has been discussed in government councils since last year. Recently, technologies for dealing with the two post-FIT challenges are becoming clearer.

The first challenge is recycling solar PV equipment. Large quantities of equipment will be scrapped as the purchase period ends, generating large amounts of waste. The Ministry of Environment has set up a guideline to promote the recycling of solar PV equipment in 2016 as institutional improvements, and on the technological side, the New Energy and Industrial Technology Development Organization (NEDO) has been developing a low-cost technology for dismantling and disposing of solar PV modules since 2014.

One of the fruits of this R&D effort is the establishment of technology for separating solar PV glass panels from cells. Glass and cells have been difficult to separate and were thus shredded together, but the new technology allows glass panels and cells to be collected separately, making it easier to recycle the glass and metals. Thanks to this achievement, several companies have launched solar PV recycling businesses. Such recycling and reuse could generate a supporting industry and lower the cost of solar PV.

The second challenge is how to make use of solar PV equipment with remaining service life after the purchase period ends. To prevent a further rise in public burden due to surcharges, solar PV should be used for self-consumption rather than sale of power. A new

technological trend is emerging which aims to establish a self-consumption model using post-FIT solar PV equipment.

This new trend is thermal energy storage technology. Since the summer of this year, major manufacturers of water heaters and home appliances have launched products that generate heat from excess solar PV power, store it in the hot water tank of a heat-pump water heater and use it to supply water heating. Although batterys are currently popular for storing energy with prices falling quickly, the service life of batteries is only about 10 years, and some emphasize that it is more economic to use existing thermal energy storage technology. Japan already has a total installed 150 GWh of thermal energy storage capacity (see the June 2016 edition of the IEEJ Newsletter), equivalent to the total energy storage capacity of pumped-storage hydroelectric power.

In Japan, the negative aspects of solar PV tend to attract attention, such as the excessive percentage of mega solar plants in total renewable energy power generation capacity and high costs compared with international levels. While these issues must be addressed urgently, we should also actively examine innovative efforts that have a longer time span, such as reducing the cost of solar PV through recycling and creating a supporting industry, and making solar PV economically self-sustainable by effectively using existing energy storage technologies on the demand side.

US: POOR DOMESTIC POLICY ACHIEVEMENTS AND ASIA TOUR

美國觀察：成效低微的國內政策與亞洲之行

By Ayako Sugino

In November, the US House of Representatives passed a tax reform bill that includes lowering the corporate tax rate to 20% from the current 35%. The Senate is now deliberating a bill which would cut the corporate tax rate to 20%, but with different details. The nation is closely watching whether the Senate can wrap up the deliberations, and following adjustments in the House-Senate conference, whether the bill can pass Congress before the Christmas holidays, as President Trump had requested. The administration and Congress have already begun coordinating to submit an infrastructure bill, which is the next key topic on the agenda, once the tax bill is approved. As such, the key campaign promises of the GOP, which companies eagerly await, will face a make-or-break decision before the end of the year.

In the energy area, a memorandum signed by the President four days after inauguration restarted a review on constructing the Keystone XL pipeline, which was subsequently approved by the State Department. This was considered a major achievement, but a closer look reveals that, although the project was given delayed approved by the Nebraska State government in November, it is headed for litigation due to problems pointed out in the state's environmental assessment. Thus, the project remains uncertain and cannot yet be considered an achievement.

Further, as part of the tax reform bill, some Senate Republicans are attempting to lift the ban on the long-disputed exploration and development activities in the Arctic National Wildlife Refuge (ANWR) in Alaska. However, even if they succeed, it is likely to have little real consequence as oil companies are not particularly interested as they would immediately face environmental litigation, and development and production would be difficult.

Thus, the Trump administration has achieved little domestically, and cracks are starting to appear between the President and the Republicans in Congress, with prominent GOP Congressmen such as Senators Corker and Flake openly accusing him upon retirement. He is also losing the support of voters as the probe into Russia's election meddling in 2016 closes in on his inner circle. Amid such problems, the White House was hoping that the 12-day Asia tour from November 5 would restore his approval ratings.

In his tour of Asia, the President met the leaders of Japan, China, South Korea, and the ASEAN, with the aims of first, cementing cooperation on tougher sanctions and stronger support from China regarding the rising tensions over North Korea; second, calling for building mutually-beneficial bilateral trade frameworks to replace the TPP, which the President abandoned soon after inauguration, and third, gaining the endorsement of the international community for a "free and open Indo-Pacific region" (in other words, freedom of navigation in the South China Sea). The administration emphasized the success of this tour, in which President Trump was given a warm welcome by each country, especially in China where 250 billion dollars worth of trade and investment were agreed. However, the general view at home is that the tour produced little of substance, although the President ended the tour safely without making reckless statements that could have hurt the country's interests.

SCK•CEN PUBLISHES STUDY ON THE PRESENCE OF RADIOACTIVE RUTHENIUM-106 TOGETHER WITH THE RMI

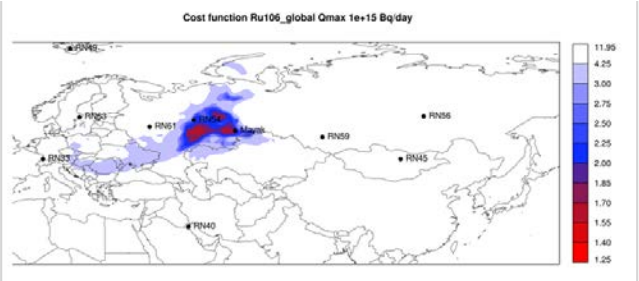
比利時核能研究中心與皇家氣象研究所共同發布釕污染之分析報告

At the end of September and in the beginning of October 2017, low concentrations of radioactive ruthenium-106 (Ru-106) have been measured in Europe and around the world. The Belgian Nuclear Research Centre, jointly with the Royal Meteorological Institute of Belgium (KMI/IRM), carried out an analysis on the origin of ruthenium-106.

At the end of September and in the beginning of October, several European radioactivity monitoring networks detected ruthenium-106 in the atmosphere. The IRSN (French institute for radioprotection and nuclear safety) then mentioned that the concentration levels "did not entail consequences for human health or the environment". The Federal Agency for Nuclear Control (FANC) also confirmed that "no increase of ruthenium rates in Belgium had been noticed" by its permanent measuring system Telerad or by any other additional measurements.

The independent analysis carried out by SCK•CEN and KMI/IRM experts used transport and atmospheric dispersion models combined with numeric meteorological data from the European Centre for Medium-Range Weather Forecasts (ECMWF) to determine the origin of ruthenium-106 based on measurements taken across Europe and around the world. The measurements used come from the International Monitoring System (IMS) which is implemented all around the world for inspecting the nuclear test-ban treaty.

"The result of the analysis is shown in the figure below and gives the difference between the measurements and the analysis for each possible region of the northern hemisphere. A low value means that the model and the measurements are strongly linked thus leading to a very possible source region", explains Pieter De Meutter, in charge of the calculations. "This ruthenium-106, a fission product, probably comes from a region in Russia where many nuclear facilities are located. Yet, it cannot have been released during a nuclear reactor incident. If this was the case, other fission products would have been measured as well, such as noble gases and iodine."



The calculations also allow to estimate the quantity of ruthenium-106 released in the atmosphere. The reconstruction of the ruthenium-106 cloud's journey over Europe and other parts of the world is shown in the animation below. The measured concentrations

across Europe are well below any risk level for health and environment. The reconstruction also shows that the cloud did not spread over Belgium.