EasternTime: when ICT policy goes global

In recent years, the international ICT policy debate has centered on European and US decision-making. However, this binary focus **neglects the growing influence** of East Asian powerhouses like **China, Japan and South Korea** in shaping the global regulatory environment.

"China, Japan and South Korea are economically too important to ignore"

ICT has become a defining aspect of modern societies. It underpins daily life and work in all advanced economies, and is an increasingly important driver of socio-economic transformation in developing countries.

The extraordinary proliferation and complexity of ICT creates an unprecedented challenge for regulators, who are struggling to develop horizontal, future-proof policies that enable digital-led growth whilst offsetting risks like crime facilitation and breaches of privacy.

In addition, regulators have yet to crack the problem of keeping legal frameworks relevant and effective when ICT is constantly disrupting the economic status quo.

Until now, the focus of the policy debate in Europe has been three-fold. First, interested parties are analysing how **market and sectoral developments in the US** are challenging existing laws at home and abroad. Second, the debate is focused on the **impact of EU policy developments** as a potential precursor to international ICT rules. Third, there is speculation about the impact of a **widening divide between Brussels and Washington over differences in ICT policy**, and particularly around the perceived targeting of US tech giants by EU decision-makers.

Although undoubtedly important in the global regulatory context, an exclusively transatlantic focus is leading businesses and authorities to neglect **the policy impact of economically and politically important countries in Asia**.

This article adds a new dimension to the debate by comparing political approaches and legislative agendas in **China, Japan and South Korea**. It is structured around four key pillars – **Politics, Principles, Power and Priorities** – and concludes with an analysis of trends shaping policy in all three countries and what they mean for ICT policy formulation globally.

MACRO CONSIDERATIONS

This article rests on **three important considerations**:

First, **China, Japan and South Korea have emerged as major economic powers** that can compete with the traditional titans – the US, Europe and Russia. China is second only to the US in GDP terms, and Japan comes third despite trailing China by a significant amount [1].

South Korea is fast becoming a worthy competitor in its own right, jumping to 11th place in World Economic League Tables ahead of European countries like Spain (14th), the Netherlands (17th) and Sweden (23rd). International Monetary Fund (IMF) data show that all three are set to **enjoy continued growth** in real GDP terms to 2020. Despite a slowdown in China, the country is still expected to overtake the Western superpowers quicker than expected – by 2025.

Second, **all three countries are important ICT players**. In 2013, China was the top exporter of ICT goods, accounting for 32 percent of the first 10 countries' combined exports, and 6th in the

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"With economic clout comes policy influence"

export of ICT services. By the same parameters, South Korea and Japan accounted for 7 percent and 4 percent of exported ICT goods respectively, and slightly less for ICT services [2].

In particular, South Korea is considered one of, if not **the most advanced ICT economy** in the world, based on international indicators like productivity, tech density and patent filings [3]. It is consistently ranked first for business expenditure in R&D, has produced global ICT companies, and comes in 1st or 2nd for fastest internet speeds, depending on the source.

Third, we assume that **with economic clout comes policy influence**. Efforts toward global regulatory convergence are gaining momentum as our societies and economies merge, which in turn increases the impact of policymaking in China, Japan and South Korea on the global regulatory environment.

THE POLITICS

Aside from official discourse around the economic opportunities of ICT, a number of tacit political objectives inform ICT decision-making in China, Japan and South Korea.

Under **Chinese** President Xi Jinping, the government's ambitions are four-fold:

1. Increase **trading and negotiation power** directly through ICT capability and by reducing ICT import dependence;
2. Create **national ICT champions at home** and build their capability to compete in the global arena;
3. Strengthen capacity to defend **national security** via ICT;
4. Control ICT in a way that ensures **domestic stability**.

Some of these objectives are also relevant to China's major trading partners. Many countries engage in policy activities to leverage ICT in a way that strengthens their geopolitical power. Setting policies to develop national champions is also common. The EU has embarked on a wide range of reforms under its Digital Single Market Strategy with this exact objective in mind.

However, the extent to which two core aims of the Chinese government – to protect **domestic companies** and **deliver national security** – manifest themselves in ICT policies is open for discussion.

First, asymmetric data protection legislation favours state-owned actors. The latter are free to share user data with the government, while privately owned companies and foreign players are forced to comply with strict data protection obligations.

Second, the Chinese government imposes restrictions on activities online that could be even vaguely linked to terrorist activity. An antiterrorism law proposed in 2015 greatly elaborates the definition of terrorism to any "proposition or activity — that, by means of violence, sabotage or threat, generates social panic, undermines public security, infringes personal and property rights, and menaces government organs and international organizations — with the aim to realize certain political and ideological purpose" [4]. The law also seeks to strengthen intermediary liability by mandating law enforcement access to decrypted data.

By contrast, **Japanese** Prime Minister Shinzo Abe's government has three political objectives in mind when developing ICT policies:

1. Use ICT as a platform on which to **play economic catch-up with China**;
2. Harness the predicative power, immediacy and reach of ICT to **build resilience against natural and man-made disasters**;
3. Leverage Japan's strong performance in ICT to **foster international trade relations and political agreements**.

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"In South Korea, the onus is on a transition toward a fully-fledged knowledge economy"

The use of ICT in **disaster prevention and response** is somewhat unique to Japan. Cataclysmic events like the 2011 Fukushima Daiichi nuclear disaster, triggered by a tsunami, and regular earthquakes have put pressure on the government to adopt ICT policies that reinforce information systems and exploit the power of information flows and data gathering in preventing and mitigating the damage caused by disasters [5].

The **South Korean** government's main political objectives are clear: cater to the needs of a tech-addicted populace, attract foreign direct investment in indigenous technology, avoid use of the internet in a way that weakens traditional societal values, and maintain a degree of coordination and control over market disruption.

A unique consideration in South Korea is the use of ICT to circumvent the country's **relatively disadvantageous geographical location**. Effectively cut off from mainland China by the secretive North Korea and from Japan and Taiwan by sea, South Korea has become very reliant on ICT to foster and execute cooperation with the international community [6].

THE PRINCIPLES

To understand the direction and substance of ICT policies in these three countries, it is important to consider the principles behind them.

In **China**, policies are made by a **conservative, centralized and risk-averse** Communist Party. The ICT legal framework is based on the assumption that technology is a **proprietary state asset**.

In terms of policies enabling ICT, there is strong political trust in the concept of **cost innovation**, which involves optimizing the Chinese cost advantage to offer consumers more at a lower price. This differentiates China from Japan, South Korea, Europe and the US, all of which are more focused on direct product and service innovation through greater functionality and a higher level of technical sophistication [7].

Also unique to China is the principle of **state subsidization**, both in a policy and business context. The government gives huge financial backing to policy initiatives. An example is Premier Li Keqiang's 'Internet Plus' strategy of March 2015; the Chinese equivalent of Germany's "Industry 4.0". This long-term initiative aims to help Chinese manufacturers deploy mobile internet, cloud computing and big data analytics, and is backed by serious state investment. A total of CNY 430 billion (USD 66.6 billion) was spent in 2015 and CNY 700 billion (USD 108 billion) is planned in 2016 and 2017 to beef up nationwide internet access. An additional CNY 140 billion (USD 21 billion) will be devoted to improving rural connectivity by 2020 [8].

On the business side, a recently announced plan would provide massive subsidies to Chinese-owned integrated circuit companies, impose forced R&D and IP localization measures on foreign firms, develop Chinese-only technical standards and establish discriminatory government procurement measures [9].

In **Japan**, policies are based on the belief that ICT should be a **ubiquitous and inclusive** aspect of society that "connects everyone and everything" [10]. There is also an underlying principle that the role of the government should be to promote the development and export of ICT.

These principles have manifested themselves in **citizen/consumer-driven ICT policies** on the one hand, and in government strategies and action plans designed to harness ICT capability **in non-ICT sectors** on the other. Since his election in 2012, Prime Minister Shinzo Abe has sought to develop Japanese capabilities in the sharing economy, the use of cloud-based services and big data analytics, and the digitalization of transport and manufacturing sectors. The government has

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also begun to abolish discriminatory rules like a ban on the online sale of over-the-counter drugs [11].

There is political consensus in Japan that ICT offers an answer to important **structural and economic challenges**, like a large deflationary gap, a rapidly ageing population and huge national debt (Japan has one of the highest debt to GDP ratios in the world). An example of this is the gearing of digital policies toward the application of ICT to health care services as a way of easing demand for elderly care services [12].

Finally, despite its progressive market economy, Japanese ICT policies are in part shaped by the country's long history of government intervention in business. Despite a new deregulatory agenda, **mass-market disruption** is still viewed with a certain degree of scepticism by the government, with a preference instead for a coordinated approach to innovation.

In **South Korea**, three political principles underscore ICT policy. Firstly, the government assumes that foreign direct investment is directly related to the **positive perception of its political and regulatory environment**. It is keen to address international claims that the legal environment is not as conducive to ICT penetration and development as it could be. The World Economic Forum's Global IT Report 2015 puts South Korea in 42nd place out of 142 countries [13]. Although this places the country in the upper 30 percent, it is nevertheless disconcerting given South Korea's global ICT leadership.

Secondly, the government largely observes the principle of **light-touch regulation**. Following a period of increased regulation from 2005 to 2007, largely in response to the growing dominance of KT Corporation (formerly Korea Telecom) and the unprecedented influx of e-retailers into the market, the government has scaled back heavy-handed rules in some areas. It is now focused more on subsidy-driven policies and framework strategies that target internet access, e-skills and training. Policy development is driven by strong trust in **supply and demand-side promotion** and **private-sector investment**.

Nevertheless, the government is not immune from taking **certain protectionist measures**, particularly with regard to smartphone production and the protection of conservative societal values [14].

THE POWER

A crucial aspect of ICT decision-making is **where the power lies**, both officially and unofficially.

In **China**, the **General Office of the Communist Party of China (CPC)** and the **General Office of the State Council** are responsible for long-term ICT development. A case in point is the development of the watershed Informatization Development Strategy 2006-2020 [15], which sets out China's goals in informatization development for the next 15 years and fell under the joint remit of these offices.

For the mid-term, the **Central Committee of the CPC Congress** produces strategies, whilst sector-specific policies fall to the **State Council**.

It is always challenging to pinpoint individual influencers within the government, but China's "cyber czar" Lu Wei is widely considered to be extremely powerful. An official of the CPC, he is "the doorkeeper for American Internet companies to the lucrative China market" [16].

From a lobbying perspective, China's roughly 150,000 **state-owned enterprises (SOEs)** are an influential force in policy development. They employ over 30 million people, and contribute nearly a third of China's GDP. Their business interests thus naturally play a role in the speed and direction of the economic rebalancing and policy development in Beijing [17].

There is an emerging trend within the government to consult non-state-owned companies.

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This is partly due to a growing recognition that the input and buy-in of major players like Alibaba and Tencent are required if the government wants to develop ICT policies that reflect market reality. The chairman of Alibaba, Jack Ma, is an internet maverick from whom politicians feel they can learn, given his success in responding effectively to China's low-trust economy where buyers and sellers are often suspicious of each other online [18].

Japan has a bicameral political system that consists of an upper and a lower house, together forming the so-called National Diet. **The Diet and individual ministries** play a central role in policy development. ICT bills are either proposed by a member of the Diet or by the **Ministry of Internal Affairs and Communications (MIC)**.

One limit to the MIC's power to drive ICT policy development is the fact that the legislative process is rather slow when a bill comes from this section of the government. It must first be approved by the Commission of Inquiry, and consultations must take place with ministries as well as the ruling party and then the Cabinet Legislation Bureau before it is submitted to the National Diet for a vote. If a bill is put forward by the Diet, much of this bureaucracy is circumvented, which is a huge advantage in the regulation of a sector that requires quick action given its dynamic and fast-paced nature.

Stakeholders seeking to influence policy in Japan often work from the **bottom up**. Junior Policy Officers are most informed about drafts, followed by Senior Officers. Political appointees at the top of the hierarchy within a ministry have a more representative role, and are lobbied when a particular issue has become heavily politicized or is the subject of international trade negotiations.

An important dimension of Japanese decision-making is the idea of government-business partnerships, or a "**triangle of power**" [19] between the bureaucratic layer (ministries), the business community – comprising ICT manufacturing giants (like Sony, Panasonic, Hitachi and Toshiba), business associations and councils (like the Japan Business Federation or Japan Chamber of Commerce) and peak associations of big business (Zaikai) – and the major political parties.

In a similar vein to South Korea, the close involvement of business is due to a legacy of strong governmental intervention in the private sector and the belief that collaboration and consultation produces more easily implementable and accepted regulations in the longer term.

In **South Korea**, the recently established **Ministry of Science, ICT and Future Planning** (MISP) is responsible for the development of ICT policies. This follows a prolonged period of change within the government, where different ministries and government authorities were made responsible for ICT policy formulation. Between 1994 and 2013 alone, this responsibility was successively held by the Ministry of Post and Communications (up to 1994), the Ministry of Information and Communications (1994-2008), the Korea Communications Commission (2008-2012), and the Ministry of Future and Creative Sciences (from 2013), which was renamed MSIP [20].

The degree of priority given to ICT within the government is also evidenced by the Chairmanship of the **Informatization Promotion Committee**, under the direction of the Prime Minister.

Interest groups have strong influence and have grown in number and size over a prolonged period of time. In contrast to Japan or China, where business has the main external say in policy development, South Korean political culture allows for cooperation between the government and business associations, labor unions, professional organizations, and non-profit, social, cultural or religious bodies. The Federation of Korean Industries (FKI) wields particularly strong influence.

THE PRIORITIES

When it comes to policy priorities, there are broad similarities and granular differences between China, Japan and South Korea.

China's policy priorities can be categorized into two types: **domestic and cooperative**.

Internally, key government priorities include cyber and national security, the digitalization of industries, building home-grown champions, the development of indigenous ICT and reducing reliance on imported cloud computing, Internet of Things (IoT) and data innovation technologies.

Recent watershed policies include new **cybersecurity** regulation, which took legal effect on January 1, 2016 and grants law enforcement access to the decrypted data of telecommunications and internet users for the purposes of counter-terrorism and national security. Although the law stopped short of imposing data localization rules, which would have forced companies to store local user data at storage centres within China following the Russian example, this increase in **intermediary liability** has drawn criticism from the European Union Chamber of Commerce in China, which believes it will undermine the value of the internet and force out foreign competition.

Other policy priorities can be largely attributed to **demands from China's trading partners**, with whom its relations are becoming more important as its economy slows. These include the strengthening of **intellectual property protection** – a key discussion point in China's ongoing negotiation with the EU on the two countries' Investment Partnership – and the **removal of trade and reputational barriers** that impede the export of Chinese hardware. The Chinese government also wants to take a leading role in the development of **global ICT standards** in the hope that Chinese-developed standards for IoT, big data technology and cloud computing will become the international norm.

Japanese priorities include data flows, ICT standards, and the continuation of strong intellectual property protection, as well as the creation of an e-society that better leverages ICT to address structural and economic challenges.

Japan is keen to increase **cooperation with the EU and US** in these areas, as it is trying to align domestic rules with international norms in a bid to facilitate trade and market access. ICT is a key chapter of the EU-Japan Free Trade Agreement (FTA) negotiations, and there are cooperation schemes in place like the co-funding agreement between the Japan Science and Technology Agency and the European Commission, which aims to support EU-Japan collaboration in research and innovation [21].

In **South Korea**, the onus is on a transition toward a fully-fledged knowledge economy as ICT emerges as the most important driver of both economic growth and South Korea's appeal as a trading partner. The government is therefore focusing on contributing to the global debate on ICT standards, further improving its already high level of internet literacy, maintaining strong IP protection and removing remaining barriers to market entry for international firms [22].

CONCLUSION

While analysing the nexus of Chinese, Japanese and South Korean ICT policies is a complex task, it is possible to identify some key trends and draw conclusions about where they compare, and where they differ.

China, Japan and South Korea all view ICT policy as being an effective instrument to deliver **national security and safety**, though from vastly different angles. The Chinese are concerned about the use of ICT to facilitate terrorist activities and crime. How ICT could impact South Korea's ongoing tensions with North Korea is a constant consideration. Japan is also concerned about national security, although more from a natural or man-made disaster perspective.

All three countries are focused on **spreading the advantages of ICT to sectors** like industrial manufacturing, health care and transport. China has gone much further in terms of policies favoring domestic firms, whereas Japan and South Korea maintain coordinated and liberalized market economies comparable to Western powers.

The three nations differ quite dramatically in their approaches to ICT regulation. China is keen to maintain a top-down approach that relies on stringent control of the sector through interventionist regulation and state-controlled subsidies. Under Prime Minister Abe and his 'Abenomics' school of economic thought, the Japanese government is embarking on deregulatory reforms and the encouragement of private investment in ICT. The current South Korean government's approach is similar to that of the UK, where a light-touch approach is favored except in cases of market or regulatory failure, or to protect societal values.

In all three countries, **further developing indigenous ICT capability, influencing the development of global standards, and creating national champions** are top of the political agenda.

IMPACT ON GLOBAL POLICY DEVELOPMENT

The impact of policy developments in all three countries on the tone and substance of the international policy debate is set to increase in the years to come. This is due to three reasons.

First, China, Japan and South Korea are **economically too important** to ignore, notably for post-recession countries like the US and regions like the EU. What happens on a policy level in these countries matters, particularly as they seek to strengthen their voice in international fora like the ITU and step up efforts to conclude free-trade agreements with major partners.

Secondly, they have **strong capabilities to produce ICT champions**, though more in goods

"Multinational corporations and regulators alike must consider the growing Asian influence in global ICT policy development"

than in services. As national and supranational governments around the world seek to create regulatory environments that promote ICT development, the focus will turn more and more to the Asian context for guidance and best practices.

Thirdly, all three governments have **robust and clear ICT policy agendas**, and the capability to execute them. China in particular is pressing ahead with controversial reforms despite criticism from stakeholders, and this forceful determination will impact the international debate whether its policy activities are accepted by the international community or not. China is also likely to try to align its policies with those of other regions, or alternatively to export its standards abroad, as its economy slows and becomes more reliant on trading partners.

The bottom line? Multinational corporations and regulators alike must consider the growing Asian influence in global ICT policy development. Without a multi-dimensional perspective, EU and US regulators will negotiate "international" standards that fail to integrate the particularities of these important economic actors and will adopt exactly the kind of regulation the business world wants to avoid: unilateral, 'one-size-fits-none' laws that cannot keep up with or promote the development of a prosperous, global ICT industry.

REFERENCES

[1] Centre for Economics and Business Research, *World Economic League Table 2015*, December 2014, available at: http://www.cebr.com/reports/world-economic-league-table-2015/

[2] *World Economic League Table 2015*, ibid.

[3] Bloomberg, *30 Most Innovative Countries*, January 2014, available at: http://www.bloomberg.com/slideshow/2014-01-22/30-most-innovative-countries.html#slide31

[4] Jeremy Seth Davis, "China, US signal a cyber policy 'arms race'", SC Magazine, December 2015, available at: http://www.scmagazine.com/china-us-signal-a-cyber-policy-arms-race/article/461681/

[5] Ministry of Internal Affairs and Communications, Michiko Fukahori, *Disaster and ICT Systems in Japan*, December 2012, available at: http://www.slideserve.com/usoa/disaster-and-ict-systems-in-japan

[6] Bruce P. Chadwick, "Information Technology Revolution in the Republic of Korea: Socio-Economic Development Issues and Policy Making Challenges," in *Bytes and Bullets in Korea*, Alexandre Y. Mansourov (ed.) (Honolulu: Asia-Pacific Center for Security Studies, 2005), available at: http://apcss.org/Publications/Edited%20Volumes/BytesAndBullets/CH3.pdf

[7] Peter Williamson & Ming Zheng, "How to Meet China's Cost Innovation Challenge", Ivey Business Journal Online, May/June 2008, available at: https://www.questia.com/magazine/1P3-1504329511/how-to-meet-china-s-cost-innovation-challenge

[8] Helen Wong, "China's dramatic shift to a digital economy", Business Spectator, March 2016, available at: http://www.businessspectator.com.au/article/2016/3/25/china/chinas-dramatic-shift-digital-economy

[9] Robert D. Atkinson, *ICT Innovation Policy in China*: A Review, The Information Technology & Innovation Foundation, July 2014, available at: http://www2.itif.org/2014-china-ict.pdf

[10] Ministry of Internal Affairs and Communications, *The National ICT Strategies in Japan Are Evolving From "e" (Electronics) toward "u" (Ubiquitous)*, accessed June 2016, available at: http://www.soumu.go.jp/menu_seisaku/ict/u-japan_en/new_outline01b.html

[11] Jonathan Soble, "Abe unveils 'third arrow' reforms of low tax and deregulation", Financial Times, June 2013, available at: http://www.ft.com/intl/cms/s/0/baba1a2c-cdb0-11e2-8313-00144feab7de.html#axzz47UayQylF

[12] Motoshige Itoh, *The Japanese economy: Tackling structural problems*, East Asia Forum, June 2010, available at: http://www.eastasiaforum.org/2010/06/09/the-japanese-economy-tackling-structural-problems/

[13] World Economic Forum, *Global Information Technology Report 2015*, April 2015, available at: http://reports.weforum.org/global-information-technology-report-2015/

[14] Bertelsmann Stiftung, *Sustainable Governance Indicators 2015: 2015 South Korea Report, 2015*, available at: http://www.sgi-network.org/docs/2015/country/SGI2015_South_Korea.pdf

[15] In the strategy, nine key aspects are emphasized: promoting informatization of the national economy; popularizing e-government; establishing an advanced internet culture; advancing informatization in sectors such as education, health care and public safety; expanding information infrastructures (e.g. wireline broadband and 3G/4G wireless networks); exploiting information resources more efficiently; improving the global competitiveness of the Chinese ICT industry; building national information security systems; and improving people's ability to use ICT.

[16] Paul Mozur & Jane Perlez, "Gregarious and Direct: China's Web Doorkeeper," New York Times, December 2014, available at: http://www.nytimes.com/2014/12/02/world/asia/gregarious-and-direct-chinas-web-doorkeeper.html

[17] "China's dramatic shift to a digital economy", op. cit.

[18] Carrie Gracie, "Alibaba IPO: Chairman Ma's China", BBC.com, September 2014, available at: http://www.bbc.com/news/world-asia-china-29119121

[19] Mohd Raimi Masrom, *Government-business Relations in Japan and Korea*, accessed June 2016, available at: http://ti.uni-due.de/ti/de/education/teaching/ss09/managecultureEastAsia/studentischeArbeiten/1.Government-business%20relations%20in%20JAPAN%20&%20KOREA.pdf

[20] Ministry of Science, ICT and Future Planning, accessed June 2016, available at: http://english.msip.go.kr/english/main/main.do

[21] Ministry of Internal Affairs and Communications, Jun Inoue, *Japan's ICT R&D Policies*, October 2014, available at: http://bit.ly/1S8VszT

[22] Ellyne Phneah, "ITU: South Korea top ICT nation again", ZDNet, October 2012, available at: http://www.zdnet.com/article/itu-south-korea-top-ict-nation-again

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