

Please find below my suggestions on what areas the government should focus on in the current stage of the Digital 21 programme.

Some issues I think should be addressed.

Each section has a brief discussion and then a recommended action to be taken by the government expressed like this: -

a) It is usual for both <http://www.digital21.gov.hk> and <http://digital.gov.hk> to resolve to the same URL.

=> Set up the DNS zone file correctly and then get the webserver to alias both URLs to the same website.

My detailed suggestions follow: -

1. Tourist access to a government Wi-fi network to get around data roaming charges.

This would stimulate tourist use of smart phones and apps that enhance their visit to Hong Kong and improve access to retailers and restaurants. Most Hotels provide free Wi-fi - make it possible for them to use data elsewhere in the city as well via an enhance Wi-fi network.

And Yes - if this means that Hong Kong people have access to the same network then great - it will not replace cellular data or broadband.

=> promote and expand current government Wi-fi to tourists - GovWi-fi is an excellent programme and should be expanded and promoted.

2. Enter into negotiations with other countries to mandate reduced roaming charges with the aim of an enlarged roaming free zone like the EU are developing.

Yes this means regulating the telecom industry, reducing their profits, and reducing possible tax takes. But the increase in commercial activity would be worth it. Look at the EU example.

http://en.wikipedia.org/wiki/European_Union_roaming_regulations

Certainly Guangdong and Macau should be easy to achieve. But roaming within South East Asia, Taiwan, Japan and Korea should have cost controls. There is no valid technical or cost reason to gouge roaming users even if it is extremely profitable to do so.

=> Work to create a roaming-charge free zone on a regional (North and South East

Asia) basis to remove roaming charges as much as possible.

3. Mandate that taxis take Octopus cards for payment.

It is a nonsense that all public transport except taxis use Octopus. It may be that taxi drivers like the cash business they don't need to declare to the IRD - and this may cause protests. But everyone else pays tax on their income when it reaches the threshold so should taxi drivers.

=> Taxis to use Octopus cards for all rides

4. Mandate that manufacturers and suppliers take back old computers, monitors, mobile phones, and other equipment.

Swire will not take back old water chillers and advise that the products just be dumped. This is corporate irresponsibility but it should be an offence under law. Many other jurisdictions mandate return of old product.

=> Mandate the return to manufacturers of old unused electronic appliances

5. The curriculum of schools must include a requirement to learn computer programming for children from the age of 13.

I've thought this for a long time and I'm very happy to see this in the Public Consultation document - excellent.

Computer programming is applied algebra and is a relatively easy subject for children to apply their minds to. It is a skill that in itself is valuable but it is transferable as well.

Programming is very task focused and requires analysis of the steps to achieve the task and then the application of this logic to a clear and useful end.

All too often schools require students to use computers but they are usually used to replace pen and paper, or to motivate children to create reports by allowing them to use powerpoint or animation. However these skills are readily learned in the workforce and are any way simple outgrowths of any use of computers.

By actually requiring students to learn simple programming many more useful skills are acquired. I personally would not want my son to learn how to use a word processor or animation program at school when they should be learning the basic foundations of an education.

Programming and the logic skills that are an outgrowth of this learning is a basic foundation that can then be built on for other subjects.

=> Mandate changes to the school curriculum for children to learn computer language programming. Focus on lower level programming in procedural languages such as PHP / C++ / Ruby / Python / Javascript

6. Open all government data on an open basis so that mashups and innovative uses of the data can be created

Don't charge for access, don't prevent anyone charging for their apps - but perhaps make sure each user of the data acknowledges the source of the data so that recognition is made of the efforts of government.

=> Keep enhancing government open data schemes and educate departments to open more.

=> Some of the tasks set for students when learning programming could be to create innovative mash ups of government data - award prizes for doing so.

7. Encourage other companies to open access to their public data in machine readable format for similar uses.

Television EPGs, Bus timetables, Bus, ferry and train locations, Taxi locations, Hotel occupancy, Restaurant pricing

Anything that is current published in some form but in an unstructured manner. For instance location of public transport assets is available in some instances but requires a dedicated web site to access.

For instance the HK Tramways QR code driven web app.

All such public information should be in a standard format so that there is little need for web scrapers to constantly be updated. The Semantic Web provides a basis for such a format.

http://en.wikipedia.org/wiki/Semantic_Web

=> create a task force to educate and promote open data access for private companies

=> create an awards scheme for companies that do so

8. Open access to all public location CCTVs and publish an open record of what government departments, including the Police, are using the cameras for.

It is vital that such oversight of CCTV use is published.

Who is watching the watchers?

This allows the public to be assured that the use to which this surveillance is being used is in a benign manner. In the same way that governments announce that law abiding citizens have nothing to fear from cameras so law abiding government departments and officials should have nothing to fear.

A detailed analysis of the importance of this process is presented in 'The Transparent Society' by Dr David Brin

<http://www.amazon.com/The-Transparent-Society-Technology-Between/dp/0738201448>

Releasing access to all public cctv cameras would be a boost to the same impulse I outlined in item 6 and is presented in the Consultation Document under 'Public Sector Information as Default'

However anyone who accesses these camera would then be entered into a public database of who accessed the cameras. This in turn would then be subject to potential mashup apps so everyone could see who was interested in which camera.

There is the opportunity for abuse - stalkers etc... but if they are logged in their stalking would be a matter of public record and censure. Only good would come of it.

Read The Transparent Society for why this is important.

=> Open access to public CCTV cameras but track who is accessing them both government and private individuals and bodies

=> An ideal way to determine the validity of this would be to invite Dr David Brin to present to government on why this is a necessary idea.

9. Ensure that all Hong Kong people understand that it is legal and proper to film the police and other enforcement bodies in public areas.

And then create a place for these videos to be uploaded for public viewing.

This is an important public right and it follows the same principle that any police or enforcement body that is acting lawfully would have nothing to fear from being filmed - and in fact just the reverse. It would be clear that Hong Kong police are the best in Asia.

In turn it would be sensible to equip beat officers with personal camera -

<http://gopro.com/> - or the professional equivalent.

<http://www.policeone.com/police-products/body-cameras/>

Being able to look back and record events is now easy and inexpensive and we should equip our society to do so in a fair manner with the information available for all.

Developing the tools within Hong Kong to make best use of these technologies would boost our ICT industry. It is a trend that should be advanced around the world and Hong Kong could lead the world in this area.

=> educate Hong Kong people that filming police and enforcement staff in public is legal and provide a venue for the presentation of these videos

=> such video uploads should be curated of course - but by a body independent of the police and enforcement bodies. Perhaps the ombudsman secretariate

10. Sensors

This is huge growth market - it is part of the internet of things. The Hong Kong government should create a task force that identifies technologies and ways to deploy them for the public good.

The data from the sensors could be made public

The market for the sensors could then also be encouraged and Hong Kong ICT companies would have the chance to take a lead in this field.

For instance small chemical sensors for tracking of pollutants and chemical weapons these could be deployed on buses, buildings and ultimately into mobile phones.

=> provide a market for intelligent sensors and publish the data publicly using the semantic web / machine readable data.

11. Doctors as a distributed disease detection network reporting in REAL TIME

Imagine if all the GPs in Hong Kong had a card with bar codes on it, and a wand with which to swipe the bar codes. Every time that they saw a patient they would be required to quickly work through the card answering some simple questions by swiping the wand over the relevant bar code.

A PC computer in the Doctor's office would then receive the data and send it to Health Department.

We would basically be able to track disease in real time as it happens rather than waiting for reports to filter through.

Questions such as: -

1. Temperature of patients
2. Age and Sex
3. Basic symptoms
4. Ultimate diagnosis

No personal particulars of the patient would be sent - we're not interested in that. We're interested in general trends within the population.

Schools could be mandated to submit information on students' health and attendance as well. This would only enhance awareness of the extent of disease and more information would actually reduce fear and uncertainty.

Advantages

- This would provide fascinating research tools that our medical departments at the university can use for analysis.

- Any possible outbreak of pandemic disease can be spotted and tracked in REAL TIME

- The company developing this system would have a ready worldwide market - the HK government should provide the first market for this

Ultimately the system would be able to provide a weather report of Hong Kong's state of health - and you could imagine a health report during the news.

=> Mandata that all GPs and hospitals report basic diagnosis information in REAL TIME back to the Health Department. This would be publicly available information presented using the semantic web or other machine readable data.

=> Schools could also be part of this - sending attendance data and the health of students to the same database.

In all of these recommendations for government action there is one overriding impulse: -

Provide the tools to open access to all government data so that it is free to use and reuse.

A secondary impulse is to encourage private companies to do the same

A tertiary impulse is to encourage common tools to access this data and freely disseminate it publicly - almost no publicly gathered data should be hidden if it is anonymised.

But it is pretty easy to work out where the line is between public and private -

If you can see this information while standing in the street then any electronic means for gathering the data should be made freely available - as long as those people who

access the data are recorded and this is also made available in turn publicly.

After all - if you are standing on a street corner watching something - then everyone can see you watching in turn. So the electronic equivalent should be enforced.

I look forward to seeing a summary of the responses to these calls for submissions.

After all - this data should be open for everyone to see.

Regards,

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