

ICA 40th Conference

Keynote Address

How Can We Take a Holistic Approach to e-Enabled Government.

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Imagine it was the first ICA meeting, forty years ago and we were discussing the future of computing. It would be completely clear to us that our punch cards and paper tapes would take us marching in orderly ranks down a path towards artificial intelligence and automating the jobs of human workers.

This man, Doug Englebart, had a quite different vision. He was convinced that the role of networked computers was not to automate but to augment the human intellect, to allow people to become more than they had been before, and not to treat them as ciphers. He spent the 1960's creating an online system, an LS, funded by Arthur at Stamford, and here he is, in 1968, treating an astonished audience to the mother of all demos on a prototype giant video screen. He shares files, he does messages, and shares hyperlinks in a live videoconference with a colleague 30 miles away. Each of them is driving a cursor, or a bug as he likes to call them: one there and one there, these are driven with a large wooden mouse which he had invented. After a standing ovation, there was some bad temper from some conventional computer scientists who felt blindsided. They had a squarely rational view of the world, which left no room for this display of innovation and empowerment, they just didn't see it coming. Englebart's augment vision rooted in the California counter-culture of mind expansion, spoke to the aspirations of human spirit and it accurately foresaw the essentials of the user-friendly, interconnected, e-enabled world that we live in today, and he was right: today over a billion of us could access the 90 minute film of his mother of all demos over the internet. All along with half a trillion other versions of the human story. As Kevin Kelly said: this wasn't in anyone's ten-year plan, its even spookily godlike, the unfolding of a collective human will.

Now, I would like to explore how the triumph of that augment vision, coupled with the fact that the best conventional wisdom available at the time never saw it coming, adds a certain layer of salsa to the ICA's agenda today. One of the distinguishing characteristics of a CIO is that they are asked to have a strategic vision of the technology they are deploying. The role of the CIO is about far more than implementing individual IT projects. As such, CIO's have to develop and deploy their own understanding, both of how technology can be used and how it should be used, and this is not a value free process, which is why I keep returning to the notion of values to Doug Englebart's augment example. I would like to argue that we need a clear set of values to underpin the technological and managerial developments and changes discussed in Frank McDonough's "Whole of Government" article.

I was asked to speak to this conference on its theme of 'Whole of Government: Filling the Holes, prompted by some research into shared services and efficiency done by my company, Kable Limited. And before I read Frank McDonough's trenchant and excellent article the brief was making me rather nervous. Indeed, I contacted some ICA members that I knew already, to share my fears. I wasn't really sure that I understood the notion of the whole of government, and if I did, I wasn't sure I was entirely in favour of it. For example, you could consolidate and centralise in heretofore-unimagined ways but why would you want to. As

Minister Delgado said this morning: the citizen will be waiting. This great work will succeed if its through and through about serving the customer. It's equally possible to de-centralise, to switch over to self-service and to abolish large swathes of the centre. The question is, which will best serve the customer?

Governments resist the whole of government approach and horizontal management. I am not surprised. We discussed the resistance that we found in the UK and frontline staff, advocates of consumer interests and human rights, specialists, would all have a great deal to say about this if they could be with us today. Public administrators, and students of government can conclude the whole of government approach and horizontal management are inevitable, because they allow better service and save money. It sounds almost fatalistic. I prefer to say that society faces deep choices and as it makes them, the voice of the CIO must be heard. And the question is, if we get to that situation what are you going to say? When we choose the architecture that will govern future relationships in civil life this can't be based simply on cost and service quality. Of course, value for money and better services matter, they are both important dimensions but it's of fundamental importance that the people in this room should not ignore the role that the architecture of our administrative IT systems plays in the quality of public trust in e-enabled government and public services. Let's face it, there is a clear danger that we can consolidate central government in a way that seriously undermines trust in the state but its not inevitable that we make that mistake.

Governments will face distractions and provocations such as the events in New York five years ago, there will be environmental challenges and natural disasters but we mustn't let them divert us from the professional job of bringing civilian administration into the information age based on sustainable values of respect and justice. One ICA member said to me; we feel like rats in a wheel, there is never enough people skills or technology to do the job. Do you see yourselves racing aimlessly, carrying out instructions to automate hierarchal systems of control? Or can you help government adapt to an appropriate role in a dynamic world of augmented people? To what extent is that role a deliberate choice of political leadership, and to what extent is it your choice? There is much talk of professionalisation but at the end of the day you have to deliver projects that work. What works and what doesn't isn't just a technical matter, and not even just a matter of what business changes you can successfully manage. Its about what works socially, ease of use, customer focus and service design all contribute to usage levels and so to do your underlying intention and values if people don't like what they think you're trying to do they won't want to have anything to do with it.

Lets talk about money. The countries represented in the ICA here today spent US\$ 258 billion last year on administrative IT. That's civil government IT expenditure on equipment, software, cons, services and staff for administration, justice, health, education and transport, not defence. That's a big pie. We broken it down here by country so you can see the US, Japan, UK. The whole pie is the ICA countries, it's not the whole world. It's completely understandable that suppliers want to beat a pass to your door and sponsor your gala dinners. And to me it makes an awful lot of sense that by and large you keep them at bay. Here are those numerical estimates of administrative IT spend expressed as a percentage of total civil government spend and as dollars per head of population on the y axis, so the horizontal measure, which is percentage of civil government spend you can take that as a measure of your country's commitment to using ICT as the lever for change. So, for example, you have got Canada, the US, Australia and Japan with a high level of commitment to ICT's as the lever that will change their government. And in the vertical axis, which is government IT spend per head of population, it gives really an idea of the resources available.

The UN presentation, I think, showed pretty clearly, the more money you have the more you can get done, either its there or its not, but we can see there that Denmark, with Japan at the top, Denmark, Norway, Sweden are the countries spending the most dollars per head of population on government IT and the size of the bubble represents the total spend. What we

did, we centred the axis around a total figure, and what's interesting to me is that there is no such thing as a free lunch.

There are now first rate and beautifully designed services for mapping, address look-up, research surveys, 3-d modelling, photo, video hosting; I know some of you passed through Mexico City on the way and it is interesting to see the street demonstrations around the election on UTube done by tourists with their mobile phones. So the whole ecosystem of blogs and wickies just based on generic tools, for the home-brewed pod cast called Twit, the weekend technology that has a higher circulation than many of our once pride national newspapers. Google Earth brings satellite views to our desktop and, as of last week, it's integrated with British Airways online flight bookings. These are surely useful to government and why on earth are we creating any of them when you can mix and match and recycle them? Those are Quick Wins.

The second theme that emerged in our ideal government conversation was about design, designing for users and the benefit especially in a semantic web or web 2.0 world of a spirit of co-creation. The original mantra design public services for users still holds but the contemporary internet offers excellent building blocks for people to create and customise services for themselves and each other. Google offers an object policy lesson in how to benefit from this. It launched Google maps in February last year. The interface was reverse engineered the very next day. Instead of prosecuting the hackers and closing down the innovation Google openly published the API inviting co-creation. So ideal government was able to hold a public sector maps mash-up competition and here are British primary schools on a Google map and if you click on them it goes through to the inspector's report; here are traffic jams; here is weather reports brought to you by a company that wants to sell you caravans and which is reporting suspiciously sunny weather; here are news stories from the public broadcaster, speed cameras around Manchester. There is no government procurement behind any of this and there is no plan, these are enthusiasts who want to prove their skills and win a lava lamp.

Co-creation is very well described by Eric von Hippel in his book Democratising Innovation, its great fun and the possibilities are open ended. Consumers innovate better than producers because they know what they need and like. They appreciate form and style as well as function, they have immense energy and diversity and they love sharing their work.

Government can make life a great deal easier for itself and for all of us by making suitable data available and navigable and avoiding debilitating copyright, licensing and patent policies.

The third ideal government theme is the one giving greatest concern and that is the need to establish the enabled society on a properly thought through foundation of trust. The perception is that this is something to which many governments merely pay lip service, waiting for serious problems to occur before doing something about them and it is a fear that many government IT strategies and indeed the preliminary ICA conference programme do not necessarily allay.

There is excellent work going on into how we could build something that people would be right to trust. I am a big fan of the Dutch approach to constitutional issues generally, and in particular the e-citizen workbook created by Matt Polman who, I gather, is described in the Ministry as the "flea in the collar", in Dutch, because he is always bugging them to do what people really want. Myatt Hanson from Schleswig-Holstein and others are working on an EU funded privacy and identity management project prime which is establishing powerful principles for how online services could respect peoples personal sphere. And fire-fighting technologists that are coming in left, right and centre with answers to questions before Ministers have even seriously posed them. Identity management is a major issue that governments are grappling with: getting it right is critical to avoiding the crises of trust I have

referred to. It is challenging and complex but there have been some really interesting developments that point to how this might work.

We have spoken to some delegates about Credentica, for example, set up by another Dutchman Stefan Brans, to roll out his theoretical work that allows for anonymity and pseudonymity in a complete range of complex transactions without the accumulation of a central database of population control. But if you were to try to do a fraudulent transaction or user-invoked credential the whole pattern of your activity is revealed. Geoff Jonas, whose Las Vegas based company SRD was bought by IBM proves how you can identify suspects from characteristics stored across different databases and he identified the 9/11 bombers very quickly from publicly available information. The tools exist to deal with exceptions, the Suicide Bomber, the Child Molester, as exceptions. Wholesale data sharing is unfeasible, Jonas argues, and his work proves that it is unnecessary.

A really interesting case study in why you need a foundation of trust is the 180-degree change in Microsoft's approach to identity management. Seven years ago they were trying to fill in the holes in their "whole of world" vision with dot net, nspassport and the proposed hailstorm architecture under which it was going to be very easy, all our credentials and all merchant accounts would reside on Microsoft servers, placing Microsoft at the heart of all our online activity, and indeed Microsoft passport was so successful, they suggested at the time, thought they would make a kind of neat replacement for the national passport.

Competitors like Sun were outraged, customers didn't want it, and online services like ebay rejected it. Microsoft saw the error of its ways and is now instead proposing industry standard customer friendly, privacy friendly identification; this is based on principles explored by their identity architect, Kim Cameron, who I know some of you have met, in a blog which was cross-fertilised with many others including ideal government. Instead of one monolithic panopticon we now see industry working towards an identity meta-system for the internet which only reveals identifying information with the user's consent which reveals as little as possible in order to be sustainable long-term, which shows ID data only to those with the necessary and justifiable place in the relationship, which supports both omni-directional identifiers for public entities and uni-directional identifiers for private ones, which works across multiple technologies run by different identity providers, including government if it wants to take part, which works with and is usable by real people, and which feels the same across multiple operators and technologies wherever, and however, you use it. It couldn't be more different from hailstorm, which sought to control and exploit people through automated identity. Even if that had worked technically, it was never going to work socially. It was destined for commercial failure. Instead, to use Englebart's term, we could say Cameron is developing a vision of augmented digital identity: a user friendly, in a sustainable way of allowing people to be fully themselves online.

What happens if your government has an idea as bad as hailstorm? One where the technical architecture threatens social failure? This technology is full of temptations. The idea might be that total surveillance and mass data retention and using artificial intelligence selectively to deny services like travel will make us all secure, or it could be that universal personalised services based on the mother of all CIM systems with wholesale data sharing and sort of predicted profiling which Tony Blair promised only last week, would deliver universal social justice.

If your government came up with a bad idea for an IT based project, which contains the seeds of social failure, what would be the circumstances in which it would recognise and accept its error? What would be your role, as government CIO's, in understanding the situation, and making Ministers aware of the implications and alternatives? How do you get your advice listened to? On the basis that you mostly understand the new technology and they mostly don't. And how would you first spot the problem? How much time do you spend listening to critical friends? Customer advocates, or service design specialists. I even wonder if we

should suggest an ICA training course called “What Every Government CIO Needs To Know About Human Rights” or “How To Learn From The Criticism Of Citizen Activists And NGO’s Without Getting Hurt”. You can keep such people at bay indefinitely but you can’t get rid of them. What you can do is learn from them. The design skills are there to make e-enabled services really customer friendly. The solutions are there to create e-enabled services, which isolate dedicated enemies of society and at the same time protect people’s personal space.

I am intrigued, and I picked this up from Frank’s piece, by what the final boundaries of the professional responsibilities of the government’s CIO will turn out to be. Someone has got to spell out the consequences of technology policies that treat people like ciphers. As your professionalism evolves does it become your responsibility to find a way to do that, even if you are not invited to?

So, what next for the ICA? Here we have a voluntary membership body whose collective view should you form one, is potentially of fundamental importance. Almost on a constitutional level to many people for a long time, shall we say, to 1.1 billion souls, a sixth of the world’s population, perhaps for a couple of generations. And here, the ICA is your retreat, your lab, and your place of peace where you can distil the essence of your collective thinking.

I do hope you can grow the membership without diluting the essence, because less is not more, and at the same time if the ICA is to have a good healthy strong affective culture or spirit it must be outward looking. It needs empathy and intuitive understanding with all those people who matter but who are not here.

I don’t know if any of you saw the journal, Political Psychology, recently reported some research by the University of California into the intelligence of US Presidents and other eminent figures. I know what you are all wondering! But George W Bush’s IQ, they report, is perfectly adequate for the task. The problem lies with his openness to experience, fantasy, aesthetics, actions, ideas and values. Jefferson scores 99 on that scale, Lincoln 95, Kennedy and Clinton both scored 82. But George Bush II scores 0. He can only see things from one perspective: his own. And his low score on what they call Integrative Complexity is comparable only to these extremist Islamic fundamentalists in the Taliban and Al Kaida leadership. Now, ICA members will need to do rather better than that! To think in terms of the entire whole of government you must embrace the rest of government and the wider public sector but to create fully holistic government you need empathy with every other discipline that matters: customer advocates, politicians, lawyers, designers, sociologists, psychologists. People familiar and comfortable with the full complexity and chaos of humanity. It is great that you can support each other once a year in this holy of holies but throughout the year you need to reach out and embrace those who are the least like you.

So to summarise. I have argued that the direction of progress that Frank describes can’t be taken for granted. What we do has to work socially as well as technically and managerially. Yes, we spend a lot of money and it is absolutely right that that is scrutinised but this work is inescapably based on values and they are much more important, and they too will eventually be scrutinised and challenged. I have suggested that the ICA might research the relationship between the CIO and Minister, that it might share the sort of expenditure context which I showed you to help members with planning and budget cases, my offer of support in human rights and how to learn from one’s critics to members, and I should say that you are all more than welcome to use ideal government as a conversation place, a well managed, well mannered salon in which to engage with some critical friends.

I think there is a choice; I think there is a clear fork in the road for each and every one of you just as there was a choice for computer science in 1968. You can offer to deliver to Ministers’ technology for an automated agenda of what Frank calls, in his article, population

control. This might be a hierarchical top-down structure based around single identifiers, large centralised databases, full data sharing and data retention coupled with real time surveillance and movement control.

There is a sort of Dr Stangelove-like promise in offering a world where behaviour can be monitored and predicted by the good guys for the greater security and peace of mind of all. Much of what we are doing in an accelerated manner now for almost exactly five years fits into that pattern. It may or may not work technically and managerially. In social terms, it's acquiring the characteristics of a colossal disaster waiting to happen. Yet it's opponents seem as oblivious to any contrary view as the 1960's proponents of artificial intelligence and automation were to the idea of distributed and networked user friendly computing that augmented the human intellect, the vision of Doug Englebart.

The alternative is that you can choose to base everything you do around respect for people's wants, needs and true human nature including respect for their personal sphere of life. You can set data free. You can design systems for users, you can invite co-creation wherever possible, you can engage with critical friends and build professional systems, which work technically in business terms, and socially. And since it is my tax paying for it, which it is, and yours, I think we should feel fully entitled to say which one we would prefer. And if I had to live with the consequences, which we all will, all 1.1 billion of us in the ICA represented countries, I know which path I would prefer to see you take. What will you advise Ministers? As they transform public services and plot the path of government in an e-enabled society. You have the potential, fundamentally to change the delivery of public services to 1.1 billion people for the better, and it's very hard to think of a more exciting and important responsibility. I will be very happy to take any questions or feedback.