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DigitalPreservationCoalition

Digital Resilience and Digital Preservation: A Briefing Day

London 21/05/2012

About these notes

These notes are intended to provide an informal record for members of the DPC not able to attend the event. For an authoritative and comprehensive report, readers are encouraged to contact the speakers directly.

Digital Resilience and Preservation

Resilience is an increasingly important topic in the provision of digital services. Digital technology offers the prospect of '24/7' services, a model which can only be sustained through constant monitoring and planning to ensure continuity of service. Increasing demands on the networks, increasing concerns about security, and increasing economic and social consequences from their failure, makes resilience a pressing concern. Business continuity planning continually refines and extends these protections to ensure that the right services are supplied to the right people at the right time.

Digital preservation is part of resilience planning and shares a core set of concepts and practices with business continuity management. Both work towards robust data provision through processes of risk assessment, disaster planning, security-testing and on-going monitoring; both use replication and redundancy to mitigate or prevent data loss; and both require a detailed understanding of what information is where and who is allowed to access it. But because digital preservation and digital resilience are designed to combat different types of threat, there is a risk that they are not aligned as effectively – or as efficiently – as they could be. How might a digital preservation plan contribute to organisational resilience? How might business continuity management contribute to a long term information strategy?

This DPC briefing day will provide a forum for members to review and debate the latest development in business continuity management and how it aligns with digital preservation. Based on commentary and case studies from leaders in the field, participants will be presented with emerging policies, tools and technologies and will be encouraged to propose and debate new directions for research.

The day will include discussion of key topics such as:

- Intelligent enterprise risk management
- Disaster planning and disaster recovery
- Digital continuity
- Business processes and preservation

How much military involvement is there in the integration of digital preservation and disaster response activities in the US?

Most involvement is with the National Guard; disasters in areas that hit National Parklands involve the military - only other involvement of military with heritage institutions is provision of security during high-profile visits.

Discussion on the "selling" of digital preservation to top management

Looking at the organisation's business plan (or equivalent) to determine impact of DP on core processes; highlighting the disruptions that can occur if DP is not augmented (or the disruptions that it can prevent) will increase the "sell"

Coaching DP in business continuity and risk management vocabulary greatly enhances the communication with management. Good News: when presented this way, it's only of "middling" difficulty to obtain the support/attention required.

* When management does have interest, they might not have the specific knowledge: instructions may take resources (financial, personnel, etc) from key activities - they might need to be convinced why a different course should be taken, and what that course is.

How is it possible to manage risk assessment activities when working with multiple organisations (collaborations, networks, etc)?

Each organisation must have clearly defined goals and activities within the context of the cooperation: what it is that they are contributing, what their responsibilities are. This specification can serve as a proxy framework to define scope.

Are DP practitioners and Emergency Services more integrated in the US than in Europe?

TC: the reason why there is connectivity between cultural heritage institutions and emergency service providers is due to specific grants and funding project, but most development is due to collaboration between cultural heritage institutions. There is no formal instructions and guidance, but things are pushed by practice-leaders.

RJ: We have fewer "disasters" in Europe; the conversations at an archive level across Europe is in its infancy

AD: The Japanese experience of a disaster so over-whelming that their backup plans were not sufficient.

TCa: Previously, 3 rooms away were okay, then 3 buildings, then 3 miles, then 3 states; the big disasters can overwhelm any problems

Floor (BBC): we faced an issue with tape suppliers as they were all based near fukoshima; we had to re-circulate our tapes for archival (further examples of impacting on laptops, and hairdryers) It would be interesting to have a database of these issues that we face, to learn from

RJ: it's something like that, those examples that are useful for us when we want to advocate

Floor: Even when we switched to a format that can be provided by multiple suppliers, but they're all essentially just two manufacturers.

TCa: Nikon itself suffered during the Japan's disasters, almost went bankrupt due to inability to manufacture certain cameras

Nolan: The Sony-Ericsson/Nokia can be a good story? Ericsson phones can no longer be purchased; Phillips, the chip provider to both, had a fire in plan in alberq. When informed, Nokia lent support and visited the plant; shifted their production, modified the layout, and purchased the entire market of chips when chips manufacturing couldn't continue in 3 weeks. Ericsson realised too late, couldn't continue manufacturing (and roll out their plans), lost 20% of market share, and had to merge with Sony.

JL: Yes, they had the info, but didn't act on it; no one declared that it was a crisis, and suffered due to it. It's good to have a specific person with the responsibility to call out when crises happen.

Floor: It's difficult though, when you need to look long term.

JL: Yes, but the business world sometimes does need to go back; blueprints are printed out etc for that reason.

WK: tracking back is also clearly evident in patent proccesses (IP management); this is a potential way for DP to factor in business processes to support patents

TCa: When NASA was trying to find the moon tapes, it had to remploy retired staff to access the Apollo11 tapes, because while they had the tapes and the equipment, no one knew how to use it. Staff came back to work with current staff to digitise the footage.

Panel Discussion: Tom Clareson, John Lindstrom, Angela Dappert, Mykola Galushka, Tim Callister, Rob Johnson, William Kilbride

What are the gaps that currently exists, and overlaps (DP and BCM/RM)?

John (Floor): the overlaps have always existed; however, businesses have not thought about it in the same time-frame as DP community has. Furthermore, businesses aren't as plugged into open standards as the DP community is - this can help mitigate issues with changes in suppliers and processes (open standards for interfaces can help in the communication of information)
TC: In the US, states and counties had massive problems due to use of proprietary services, and are currently far behind in their document management.
Floor: It's the reason why EU is putting resources into such funding, for use not only in government but also in enterprise (like TIMBUS). It's still in the early stages; developing open platforms is also going to be very useful. Business process preservation analysis also needs to look at systems - preservation is currently "tagged onto" the back of BCM, we can move forward to include it within the design of BCM.

AD: In DP, we shot ourselves in the foot by defining ourselves in the realm of obsolescence; we should always be focused on the long term perspective, and make sure we integrate with IT systems.

MG: In my previous experience, software industries have an invested interest (and exploit the market leverage) by resisting open-formats for fiscal gain. This is a commercial resistence that DP will face.

Floor (BBC): We can manage this by focusing on what is the specific priorities for us; we may not be able to save everything always. Our own specific industries will have our own priorities

JL: what we should really be striving for if for it to no longer be called DP, but just SOP in government/processes

RJ: That's exactly the goal of the digital continuity project; for it to just become standard operations. It should not be something "other," not an extra thing to do; no one likes to be cleaning up after. It's about making sure that there's a sensible process and system that doesn't cause resistance to users for proper use

WK: There is a sense that there is little trust in a cloud service due to the inability to migrate data out of the cloud service. Is that a reasonable expectation, in using clouds in preservation?
Floor: Risk can be spread by spreading service providers, but data migration is definitely an issue; it can be very costly if your data size is large. Physical storage media might need to be used in the transition, and when you have migrated, you can be "locked in" due to the cost and effort investment. There is a specific project research lab is working on, Open Cloud Computing; creating a standard API across cloud providers, translating the specificities. When providers say they are OCC-complient, it will provide lower barriers to entry. Inhouse cloud computing systems can also be used.

WK: Are there standards in BCM that DP should be aware of, and vice-versa?
JL: there is a new standards developed in information security; no overlap, but similar. ISOs also cost. Some work is done in the US

Floor RL: digital incubator and ATC is working on something in early stages. Some of the work that is happening now in creating standards is that there is a lot of duplication of work already done: definition of terms, etc

JL: 9-11 helped to push the development in ISO for business continuity; formalisation in US helped Europe moved forward

WK: