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Abstract

The Education Ministry in the Australian State of Victoria undertook a major project: building the Ultranet, between 2005 and its release in August 2010. The possibilities offered by the Ultranet were considerable, but up take by schools was not. The Ultranet is not yet dead, but it is certainly not in a good state of health. An analysis of communications shows that user needs were not assessed adequately, and that the poor handling of the system-wide launch was sufficient to disenchant even those who had expressed initial support. This e-Government project is studied as an example of project failure, particularly in regard to its human aspects. The existence of small pockets of dedicated users points to the possibility of resurrection of those parts of the business case where the users continue to value the feature. Suggestions are made for a possible means of project recovery that would address the problems in this case, and a framework is proposed for anticipating other e-Government project failure points.

Keywords: Ultranet, eGovernment, project management, systems implementation, technology adoption

1 Introduction

In 2006 the Victorian Government made an election commitment to provide parents of school children virtual access to their child's classroom 24 hours a day using a new portal: 'the Ultranet'.

"The Ultranet is a new online system that will take Victorian government schools and students into the learning environment of the future. It is a state-wide, secure site that students, parents and teachers can access via the internet to use online learning activities. From the end of September, parents will be able to view their child's attendance to help keep up-to-date with their child's progress. This information will build up over time to include their homework and in-class learning activities, creating an ongoing record for each student. These records will travel with your child from year to year and school to school. The Ultranet provides the opportunity for parents to gain a better understanding of their child's learning progress. It aims to encourage open communication about what's happening at school." (DEECD 2010d)

Prior to this, in 2005 the Department of Education commenced a joint R&D initiative with the Oracle Corporation to produce *"the prototype for a student centric system that supports teaching and learning, curriculum delivery and the management of knowledge in Victorian schools"* (DEECD 2005). The Department of Education then conducted a pilot project for the Ultranet in 22 schools over 18 months (Griffin and Woods 2006). This was reported as a *"proof of concept student-centric ICT system, called Students@Centre, to support online teaching and learning, curriculum delivery and knowledge management in Victorian government schools."* (DEECD 2010c).

In 2007 the Department of Education and Early Childhood Development (DEECD) attempted to develop a business case for the Ultranet. Its first attempt was rejected by government. The second business case submitted later that year was a revised version of the first and proposed the Ultranet as an intuitive, student-centred electronic learning environment that supports high quality learning and teaching. Its objectives were to:

- *"improve responsiveness to individual learning needs*
- *provide better information to parents, the school system and government*
- *improve the efficiency of the learning environment and school administration*
- *adopt an enterprise approach to intranet development*
- *exploit previous ICT investments."* (VAGO 2012 :4)

The business case acknowledged that schools already had the choice of a number of commercial ICT solutions and that many schools were already using these. It emphasised, however, *"that no single solution could provide the full level of scalability, security, interoperability and functionality that is needed to meet the identified business needs and objectives of the Ultranet"* (VAGO 2012 :4). In August 2007 DEECD put out a request-for-tender (RFT) to develop and manage the Ultranet, but several months of evaluation and negotiation were unsuccessful, as no tenderers could meet the original \$65 million budget.

Benefit	Key performance indicators
Establish a school environment for the future	Number of students using Ultranet (target 70 per cent)
Improve the educational outcomes for Victorians	Number of students accessing online learning resources in the Ultranet (target 65 per cent) Number of teachers accessing resources, preparing curriculum plans, delivering Ultranet-based resources (target 65 per cent)
Reduce the administrative burden on teachers and school leaders	Efficiency in administrative processes (target 20 per cent over baseline data)
Reduce the future cost of education	Number of external software packages used to assist school administration (target 30 per cent decrease over baseline data) Cost of external software packages used by government schools to assist in school administration (target 15 per cent over baseline)
Improve educational opportunities for regional, rural and remote Victorians	Number of students participating in online collaborative technology via the Ultranet (target 30 per cent of regional and rural schools' students) Number of teachers accessing online content and communities via the Ultranet (target 30 per cent of regional and rural schools' teachers)

Figure 1: Ultranet Key Performance Indicators from DEECD 2007 Ultranet Business Case (VAGO 2012 :5)

As a result, in September 2008 DEECD reduced the scope of the project to a level it believed could be achieved within the original budget. In November 2008 it issued a second RFT with a requirement that the project be complete by September 2010. This time a preferred vendor, the Australian IT firm CSG Limited, was selected. A third variation on the business case was presented to government in May 2009 dropping the need for the Ultranet to provide administrative support to schools.

The Ultranet, which is essentially an extended intranet/extranet was rolled out to all Government schools on time in September 2010 (Tatnall and Dakich 2011) when the then Victorian Minister for Education noted that: *“The Victorian Government is committed to giving every child every opportunity to experience the full potential of online learning, collaboration and information sharing”* and described the Ultranet as the *“Victorian Government’s biggest investments in information and communication technology in our public education system”* (Pike 2010).

With great promise (Tatnall, Dakich and Davey 2011), adoption of the Ultranet by schools and teachers has been disappointing. In a November 2011 report, the Victorian Ombudsman noted that: *“Despite its early problems, Ultranet has been delivered and is working in schools and there is widespread support for the concept.”* (Victorian Ombudsman 2011 :96). By the following year however, in December 2012 an Auditor-General’s report indicated that: *“Use of the Ultranet is low, and declining”* (VAGO 2012 :ix). The report went on to add that:

“The Ultranet project was poorly planned and implemented. None of its three business cases had a well thought out needs analysis or gave considered options to deliver the project. The various business cases did not answer the ‘Why invest?’ question for the Ultranet, nor did they provide a sound basis for the project’s approval.” (VAGO 2012 :ix).

The Ultranet could now be considered to be a failed project, but one that can perhaps be saved. This paper discusses the Ultranet project, how the project failed and how it might be saved.






2 Background: the Victorian Education Ultranet

The Ultranet was designed as a Web-based online system to support delivery of curriculum, online teaching and learning and sharing of knowledge across all Victorian Government schools. It began its service to all Victorian Government schools in September 2010 as “*a student centred electronic learning environment that supports high quality learning and teaching, connects students, teachers and parents and enables efficient knowledge transfer.*” (DEECD 2011; Tatnall, Dakich et al. 2011).

Speaking of the Ultranet in a 2005 addition of ‘The Education News’ the Deputy Secretary of the Office of School Education acknowledges that: “*Many schools are experimenting with their own [ICT] frameworks and have done some very impressive work in utilising technology to inform learning, however, this project aims to build a product that provides an ICT framework that allows the whole school community to engage with learning in ways not previously possible.*” (Fraser 2005).

The Ultranet has many of the features found in a business extranet in that it is closed to people outside the Victorian Government school community and requires a username and password to gain access. Its intended users are school teachers, as well as school students and their parents, all of whom would be issued with user names and passwords. The Ultranet divides its sub-websites into ‘Spaces’, where each Space provides one of the following different levels of access:

1. Private Spaces accessible only by the owner.
2. Shared Spaces that can be seen with permission.
3. Public Spaces that can be seen by anyone.

	WHO CAN SEE...			WHO CAN JOIN...	
					
	My child's Home page	My child's eXpress Space*	My child's eXpress Profile	Collaborative Learning spaces with my child	Community spaces with my child
Students in my child's school	✗	✗	✓	✓	✓
Teachers in my child's school	✗	✓	✓	✓	✓
Students in other schools	✗	✗	✗	✓	✓
Teachers in other schools	✗	✗	✗	✓	✓

*a student's eXpress Space includes their landing page, Learning Goals and Learning Portfolio.

Figure 2: Information for parents – Who can see student information in the Ultranet? (DEECD 2010a)

One important difference to most business extranets however is its size, with over 500,000 users (Australian Bureau of Statistics 2010; DEECD 2010b). The Ultranet has many of the features found in learning management systems like Blackboard or Moodle, but it differs in having features intended to inform parents about their child's education and about the school they attend. Specifically, the Ultranet was designed to achieve the following:

1. To allow students to access personalised learning activities and to keep an on-going record of these activities. This would later enable every child to have a complete record of achievement across all years of schooling.
2. To provide students with their own online workspaces and personally tailored education programs.
3. To enable students in remote schools to access specialised curriculum and podcast classes from schools that excel in various subject areas.
4. To allow teachers to create curriculum plans, collaborate with other teachers, monitor student progress and provide student assessment.
5. To reduce the administrative burden on teachers by using it to record attendance, and to assist with creating school reports and timetabling.

6. To enable parents to see information about their child's learning. This would include attendance records, timetables, test results, learning progress, homework activities and teacher feedback, and be available to them at any time.

(DEECD 2011; Tatnall and Dakich 2011; Tatnall, Michael and Dakich 2011)

3 Great Educational Opportunities, but a Failure to Enthuse Schools and Teachers

Although it has not been widely adopted around the state (VAGO 2012), the Ultranet is now well used by a select group of schools, mainly centred around several specific regions, both as a tool for student collaboration and as a means of communicating with parents. In one particular country school parents are given fortnightly update reports on their child's school progress through use of the Ultranet (Topsfield 2012b). In another example a group of schools in Melbourne's west held a 'Big Day Away' each week in 2011 in which children were bussed to a school centre *"to participate in Ultranet sessions based on the interests and knowledge of the students"* (Pizer 2012).

Around the rest of the State there is little use of the system with only 10% of students and 27% of teachers regularly logging in. This is partially due to a ban by the Teachers Union in an enterprise bargaining dispute (Australian Education Union - Victoria 2012), but this alone does not explain why such little use is being made of the Ultranet. This has more to do with lack of understanding of the Ultranet's potential uses and disenchantment with the value of the system compared with other tools that are more easily adaptable and usable.



Figure 3: What is the Ultranet? (DEECD 2011)

A 2010 survey reported by the Victorian Ombudsman (2011) indicated that 65% of School Principals thought that the Ultranet could have positive effects on student learning. They thought that the Ultranet could enhance teaching practices, support school culture and improve the school's ability to communicate with parents. When asked whether they considered the implementation of the Ultranet at their school to have been successful however, only 37% said that it had. Another indication of the stagnation of the Ultranet is the lack of apparent interest in Ministry of Education sources, especially after a change of State Government. Entry to the schools page for parents makes no mention of the Ultranet (DEECD 2012).

4 Research Methodology

This study used thematic document analysis to determine themes within documents relating to the system. The search terms 'Ultranet', 'Ultranet coach' and 'Lead Teacher' were used in several search engines to generate an initial set of documents and links. Links were followed where relevant to generate a further set of documents. These documents included Education Ministry and Department of Education and Early Childhood Development formal documents as well as documents from most schools in Victoria. The formal documents also included several Governmental reports including analysis of the Ultranet. These reports were generated by intensive study by the offices of the Ombudsman and the Auditor-Generals Department. The search also produced a large body of informal web based information. The web based

information included pages and blogs meant to support teachers together with a very large body of commentary by individuals and organisations.

These documents were analysed using thematic document analysis (Fereday and Muir-Cochrane 2006; Bowen 2009; Morris and Ecclesfield 2011) in which several researchers seek underlying themes of meaning within the text independently. This is achieved through an iterative process of ‘skimming’ the material, reading thoroughly and then interpreting the meaning of text in context. This iterative process allows a type of pattern recognition within the material and each researcher identifies a set of themes integrating the data from the various sources. A final set of themes is generated from the overlapping outcomes. This method has been used in similar intensive case studies and is particularly appropriate to this case:

“As a research method, document analysis is particularly applicable to qualitative case studies—intensive studies producing rich descriptions of a single phenomenon, event, organisation, or program” (Bowen 2009)

In this case the document analysis was used to gain insight into what happened but also into the conceptions of those people involved in the introduction of the system. We are not so interested in the facts of the case, although these are apparent from the detailed formal investigations carried out, but in the evolving expressed attitudes of the stakeholders in the new system. A case study in system failure can be approached from many viewpoints. An aspect of this case is that a working system was produced that satisfied most definitions of system success. The system, however, is not being used. This means that the case is best considered as a project rather than the more common information-systems-lens of systems development.

5 Project Management Methodologies and Project Failures

Information systems failure is seen by the literature to be anything from slight cost or time overruns to total abandonment. This can include situations such as when the project:

- Does not deliver the benefits the customer expected
- Investment costs exceed the benefits of doing the project
- Does not meet all the client’s or stakeholder requirements
- Does not meet all design specifications or quality standards
- Over-runs its project or does not meet its scheduled project finish date
- Has some aspect of its project technology not operating properly
- Is not fully used
- Collapses completely.

The much discredited ‘Chaos Report’ by the Standish group in 1995 (Standish Group 1995) has subsequently been shown merely to have overestimated the proportion of information systems that fail. More recent work shows that information systems continue to fail (Liebowitz 1999; Dalcher and Drevin 2003; Shoniregun 2004; Jørgensen and Moløkken-Østfold 2006; El Emam and Koru 2008) and that this is very largely due to the problems of anticipating how humans will interact with information systems (Mitev 2000; Eisenmann 2002; Tsumaki and Tamai 2006; Bali and Wickramasinghe 2010).

Project failure often has much to do with lack of accountability and responsibility, lack of adequate scope definition or lack of communication between those involved. The failure of systems is a good lesson to system designers but is too late for the system concerned. It is of much more value to understand the process of failure and to identify the points of intervention that might enable the avoidance of failure. Obviously the most important facet of impending failure to study is that of the humans for whom the system was designed.

There are a number of accepted approaches to project management, the Project Management Body of Knowledge (PMBok) and PRINCE2 being two of the most important. The Project Management Institute's PMBoK (Project Management Institute 2013) divides project management into nine aspects and then describes what work needs to be done in each: project integration, project scope, project time, project cost, project quality, project human resources, project communications, project risk and project procurement.

The PRINCE2 (PProjects IN Controlled Environments 2) process-based approach to project management (APM Group Ltd 2012) was developed by the UK government for use in its public projects. PRINCE2 is based on seven principles (business justification, learn from experience, defined roles and responsibilities, manage by stages, manage by exception, focus on products and tailor to suit the environment), seven themes (business case, organisation, plans, progress, risks, quality, change) and seven processes (Starting up a project, Initiating a project, Directing a project, Controlling a stage, Managing stage boundaries, Managing product delivery and Closing a project)

The Ombudsman's Report notes that management of the Ultranet project was not as good as it could have been and that lack of a consistent and well thought out approach to project management caused problems. Neither PMBoK nor PRINCE2 methodologies were used in the Ultranet project.

"Many resources exist that can assist agencies to manage ICT-enabled projects well, including the Auditor-General's guide, Investing Smarter in Public Sector ICT: Turning Principles into Practice. However, the public sector's lack of competence in ICT contributed to its inability to manage ICT-enabled projects and to project failures. It also led to a dependency on expensive, contracted staff who often do not share public sector values. More work is required to attract skilled ICT staff to government." (Victorian Ombudsman 2011 :9)

6 Document themes

The large body of documents were analysed by the team in order to identify user perspectives of the project.

6.1 Delivery – a first failure of trust

The Ultranet was released to much fanfare on 9th August 2010 when all Victoria's 1,600 State Schools were closed for an extraordinary student-free professional development day to allow teachers to familiarise themselves with the new technology (DEECD 2010d). All Government Schools Principals and Assistant Principals were called to Melbourne attend Ultranet's 'Big Day Out' at the Melbourne Exhibition and Convention Centre. Teachers across the state were asked to participate from their school locations. Unfortunately this day turned out to be disastrous when the system crashed at 9am. Many of the state's 42,000 teachers and principals experienced problems when they attempted to log on, and later, when the system was running,

those who could gain access reported that it was running extremely slowly (Holden 2010; Levy 2010; Topsfield 2010).

One important definition of project failure is the failure to deliver, and this spectacular initial failure had, as an immediate corollary, a loss of faith by teachers in the system. It also resulted in a review of the proposed benefits of the scheme. Emails from the Ultraset General Manager immediately before the launch day show that significant downtime was then being experienced and suggest the day should have been rethought (Peck 2010). Teachers were frustrated on the day and their attention was drawn to simple issues such as usability and the lack of problematisation of the Ultraset as an innovation. Following the disastrous introduction day the Ultraset was made more stable and began to deliver.

6.2 Problematisation – a failure to establish need

There was, however, another problem with adoption. A typical blog from the time of the training day disaster (Fraudster 2010) showed that teachers were already using a number of different tools that were more easily adaptable and usable for many of the purposes provided by the Ultraset. This raised the question: why should I adopt and use the Ultraset? To assist with implementation, Ultraset coaches were appointed in each Education Ministry region. These coaches were teachers based at a school and with a small group of schools to service. Their positions were at a significant salary increase for most of the appointees. As well as coaches each school had an Ultraset Champion appointed called a Lead User. These support structures are well researched and had been used to good effect with previous educational innovations. Efforts to convince schools and teachers to make good use of the Ultraset was a critical factor in its adoption and the Ombudsman's Report notes that:

"Users' resistance and reluctance to change are the biggest potential barriers to Ultraset and uptake and ongoing usage will have to be monitored carefully. Ultimately, Ultraset's success will be dependent on whether students, teachers and parents are able to access and use the system and whether they feel that it is having a positive impact on teaching and learning. It is therefore important that DEECD develop a detailed strategy and plans to further develop Ultraset so that it does not become stale and dated." (Victorian Ombudsman 2011 :97)

6.3 Upper management support – a failure of faith

A further nail in the Ultraset's coffin was a change of State Government in December 2010. As the Ultraset was a project of the former State Government, the new government, while not attempting to kill the project, was less than keen to see it succeed. Within a very short time the Ultraset coaches were advised they would no longer be employed and that their positions would be withdrawn at the end of 2011. After this time, little extra effort was made by DEECD to improve the Ultraset or to sell its benefits to the education community. One Primary School Principal when asked whether the change of State Government had made a difference to adoption of the Ultraset said: "Yes, all the difference".

Apart from problems with user acceptance, the Ultraset project appears to have been flawed from the beginning. In November 2011 the Victorian State Ombudsman reported on a number of Government "ICT-Enabled Projects" that had not gone as well as they should. The report noted that:

“The Ultranet project suffered from inadequate upfront planning and a general disregard for industry and Gateway advice, which indicated the project could not be delivered within the budget and timelines. Ignoring this advice resulted in a failed tender that cost around \$5 million. It also set the project back by a year and damaged the reputation of Ultranet.” (Victorian Ombudsman 2011 :25)

A year later, the 2012 Auditor-General’s Report on the Ultranet was quite scathing indicating that:

“The Ultranet project was poorly planned and implemented. None of its three business cases had a well thought out needs analysis or gave considered options to deliver the project. The various business cases did not answer the ‘Why invest?’ question for the Ultranet, nor did they provide a sound basis for the project’s approval.” (VAGO 2012 :ix)

The Auditor-General further reported that:

- “The Ultranet has not delivered its main objectives or expected benefits.
- There were a number of serious process issues and apparent probity breaches in relation to the Ultranet procurement.
- No cost-benefit analysis has been conducted to determine whether the Ultranet provides value for money, or whether the same functionalities could have been delivered more cost effectively.
- Use of the Ultranet is low, and declining.
- Poor quality financial data means that actual capital and operating expenditure for the Ultranet is unclear.” (VAGO 2012 :19)

Given that \$5 million was spent on the failed 2007 tender, the original \$64.6 million budget for the Ultranet should now be seen as \$69.6 million. In addition, this cost estimate did not include DEECD’s costs of another \$5 million as systems integrator making the total cost \$74.4 million. The Ombudsman’s report (2011) also adds that training costs had not been fully calculated and recorded against the project. The Auditor-General (2012) notes that the full costs of the project were thus poorly recorded by DEECD and that a conservative estimate of actual costs by June 2013 would be \$180 million, or about three times the original budget.

The Auditor-General (2012) notes that in addition to cost overruns the project scope was also considerably reduced with its business requirements reduced by 90% from the 1,260 functions stated in the 2007 business case to 131 functions contained in the 2008 RFT specifications. The concurrent user requirement was also reduced from 250,000 users to 78,000 and the Ultranet’s total storage from 330TB to 160TB.

“Some six years since its announcement as a government priority, the Ultranet has not delivered any of the main objectives that were expected when the project was funded. The Ultranet is significantly late and over budget – and with limited functionality – when compared with what was originally announced.” (VAGO 2012 :20)

2007 government commitment	Achieved
Victorian parents will get virtual access to their child's classroom 24 hours a day, seven days a week under Labor's \$60.5 million plan to revolutionise learning.	✗
The Ultranet will allow parents to log in to their child's classroom, check lesson plans, homework and results, attendance, and even communicate directly with teachers via email.	✗
Every classroom in a school and every school within the state will be linked, starting in 2007, with the rollout completed within three years.	✓ / ✗ ^(a)
Students would have their own virtual work spaces with homepages and personally tailored lesson plans accessible, via the internet, from anywhere.	✓ ^(b)
The Ultranet will consolidate school administrative functions into the one system and lighten the burden on teachers	✗
Parents will be able to monitor school attendance, which will be recorded twice a day, with automatic notification via text, email or phone call of non-attendance.	✗
(a) Although all schools are now linked to the Ultranet, this started happening in 2010, not 2007. (b) While this functionality is now available in the Ultranet, very few students have in fact set up their personal work spaces.	
Source: Victorian Auditor-General's Office.	

Figure 4: Assessment of the Ultranet's expected benefits (VAGO 2012 :29)

The Ultranet's low usage rate along with uncertainty on DEECD's view on whether schools can opt out of the system is, according to the Auditor-General (2012), challenges its viability. This is then having a negative effect on delivery of expected benefits from the Ultranet and meaning that *"the government's key learning technology investment is now under serious threat"*. It also means that the return on investment of substantial public funds is dubious.

6.4 Stakeholder analysis – failure to understand

There are also alternatives to the Ultranet as a blog by a secondary school teacher explains: *"Google Apps for Education gives teachers and students at my school everything we could ask for in an online environment: flexibility, ease of use, customisability, practicality, efficiency, effectiveness, collaboration, availability on multiple devices etc...for FREE!"* (ReflectiveTeacher 2012)

Another problem with Ultranet implementation was that DEECD did not give sufficient consideration to what effect introducing the Ultranet would have on teacher workloads as they learned to use it and to integrate it into their teaching practice. The Auditor-General's Report (2012) notes that even after the initial stage of coming to grips with the Ultranet, teachers would need to spend extra time for professional development. They would also need to spend time assisting and training parents to use the Ultranet. This does not appear to have been considered.

7 Can the Ultranet be Saved?

The fact that the Ultranet is well used by some schools suggests it can be saved, but this is not all clear at the moment. On a positive note one blogger indicates that: *"Overall, I am*

disappointed with the Government's spending on this project and the poor usability thus far, but I do like the idea of it and the potential that it holds." (ReflectiveTeacher 2012). The Ombudsman reports that:

"Users' resistance and reluctance to change are the biggest potential barriers to Ultranet and uptake and ongoing usage will have to be monitored carefully. Ultimately, Ultranet's success will be dependent on whether students, teachers and parents are able to access and use the system and whether they feel that it is having a positive impact on teaching and learning. It is therefore important that DEECD develop a detailed strategy and plans to further develop Ultranet so that it does not become stale and dated." (Victorian Ombudsman 2011 :97)

Assuming that any further technical problems can be addressed; will the Ultranet be adopted by teachers, students and parents? A new information system is of no use unless it is adopted and used, and as with any technological innovation, people will only adopt a new technology if they see some value in it; if they see that it will assist them in some way (Tatnall 2011). As the old English proverb says: *"You can lead a horse to water but you cannot make it drink"*. In its recommendations, the Victorian Auditor-General's Report (2012) concludes that it will be important to identify and address the underlying causes of low take-up rates across the school system by teachers, students and parents. A new Information System will only be adopted if potential users make a decision to do so. Clearly it is necessary for DEECD to do more work to convince teachers of the value of the Ultranet and encourage adoption. One way that this could be achieved is through a series of well thought out professional development activities. Another possibility is the setting up of "Lighthouse Schools" well equipped with ICT and with teachers well versed in its possibilities to demonstrate a variety of uses that could be made of the Ultranet. The Australian Government provided funds for an approach like this in the 1980s when computers were just beginning to be introduced in schools and its computer education program was in full swing. The Auditor-General's Report also recommends that DEECD *"expedite the provision of guidance to schools on the current status of the Ultranet as the department's key learning technology investment, and clarify the policy context of schools' autonomy in purchasing non-Ultranet learning technologies"* (VAGO 2012 :31).

In December 2012 The Age newspaper (Topsfield 2012c) reported that the Victorian Government would seek advice on whether the Ultranet, now noted to have cost \$180 million, could be salvaged. In another article the secretary of the Department of Education and Early Childhood Development was quoted as announcing that the government was *"looking at the Ultranet in its entirety... It's a fact, and a well-known fact I think, that the level of take-up of the Ultranet has been nothing like what was intended."* (Topsfield 2012a). The Ultranet faces a future that is far from a secure one!

Given the large investments by governments in various large scale technology solutions for various sectors including education, healthcare and disability, we wonder if there are lessons from the Ultranet experience that can be useful in future studies of a similar nature which will thereby serve to save significant costs and heartache.

8 Conclusion

This paper is a careful analysis of a case study of eGovernment with very specific characteristics: a working system was produced but is not being used. The decision was taken to study documents relating to this case as an Information Systems Project, using Project

Management principles as the focus. The analysis identified stakeholder attitudes to the project. Identification of these attitudes should then enable a sensible approach to be taken regarding the possible revival of the system. The approach of considering the system from a project management view seems to be especially relevant to the nature of this systems development.

The documents revealed a number of themes and points of failure. Each of these seems possibly to be a more generally applicable failure point for eGovernment systems. The recommendations made here are without formal foundation and merely seem sensible to the author team from their experience.

Delivery – a first failure of trust. The ‘grand opening’ of the Ultranet was a technical failure. Recognising that this destroyed the trust of users in the system should point the way for the system owners to create trust-building exercises. We recommend that specific uses of the system be identified that would be of maximum value to teachers. When these are found to be robust there will be some return to trust in the system.

Problematisation – a failure to establish need. The Ultranet was partially inspired by existing systems in which teachers had found value. As even these systems, lacking integration and security, were not universally used, it seems teachers did not see a need for a monolithic system. While this could be seen as a project management failure that has passed, the failure to establish need can be overcome. In circumstances of this type it seems sensible to identify the aspects of the original business case of most utility to teachers and ensure these are incorporated. The Ministry has identified communication with parents and insisted that all reports be generated by the system. This seems likely to provide efficiency gains that directly impact on teacher workloads and hence to restore some case for a need for the system.

Upper management support – a failure of faith. In democratic societies all eGovernment systems are subject to the problems that arise from change of government. It is natural for ruling parties to want to associate significant infrastructure projects with the party rather than the State. Information Systems developers in the government sector should be aware of this fact when undertaking project planning.

Stakeholder analysis. Effective systems must be of value to the people who use them beyond the cost of their use. There seems to be an attitude of ‘sunk costs’ when considering teachers in schools. A presumption that teacher time is infinitely flexible and additional tasks can be added to their role at no additional cost.

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