Case Study: The Canadian Gun Registry Project Failure

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CSIA 6040 - IT Project Management

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# Work Performed

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| **What needs to be done:** | **Due On:** |
| Company & Overview | April 2 |
| Factors | April 9th |
| Meet online to review | April 9th 8:30pm |
| What IT project…. | April 16th |
| Was the Project a Success | April 23rd |
| Review and Revision | April 24th 8:30pm |
| Final Review and Submit | April 25th 8:30pm |

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# **Company Background**

# Electronic Data Systems & SHL SystemHouse

The Canadian gun registry program hired on two companies to develop the system that would register gun owners. The two companies were Electronic Data Systems, now ran under HP and SHL SystemHouse now known as MCI SystemHouse.

Electronic Data Systems--a multinational information technology equipment and service company was started by Ross Perot in Texas. Perot modeled employee behavior on the high standards of IBM; conservative dress, customer honesty, and no alcohol during work hours. He ran the company with military precision but established a management structure so that management would listen to employee suggestions and ideas. ("Electronic Data Systems Corp Facts, information, pictures | Encyclopedia.com articles about Electronic Data Systems Corp", 2016)

EDS wrote five year contracts where its competitors would only do 60-90 days and charge hourly. EDS originated the idea of long-term fixed-price contracts. The longer contracts gave EDS stability and profit. EDS pioneered another concept called distributed processing. Distributed processing is when systems and terminals would communicated with each other from other remote locations. EDS was acquired by HP in 2008. ("Electronic Data Systems", 2016)

SHL SystemHouse provides integration of IT systems and outsourcing services. Merged with MCI and renamed themselves to MCI SystemHouse. ("MCI Systemhouse | CrunchBase", 2016)

## Goals of EDS & SHL SystemHouse

* Long-term and fixed-price contracts.
* Create systems for customers.
* Integration of IT systems.

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# **Project Overview**

## Events & Legislation

On December 6 1989, Marc Lepine used a rifle to gun down fourteen women and injured fourteen others at L’Ecole Polytechnique in Montreal. This incident caused an out roar focused on the subjects of women violence and lack of gun law regulation. Similar to the columbine shooting in the United States. The L’Ecole Polytechnique Massacre caused pressure on the Canadian Federal Government to pass a bill to regulate guns in Canada.

In 1991, Bill C-17 was passed creating new criminal code offences, more restricted weapons, more regulations for firearm dealers, more intense background checks, and a requirement for gun owners to pass safety course.

Bill C-17 came into force between 1992 and 1994. Later in 1995 a amendment was added to Bill C-68. The amendment implemented a new centralized licence system. With greater regulations on firearms requires a Canadian gun registry system. The amendment implemented harsher penalties for gun related crimes.

## Project Goals

With the implementation of the new Canada gun control laws requiring registration of all firearms. The new Canada Gun Control Laws give the Canadian Federal Government the ability to track any firearms to be stored, trackdown any weapon used in a crime and store the information in a centralized easy to use large national database.

Timeline

* December 6 1989 - L’Ecole Polytechnique Massacre
* 1991 - Bill C-17 passed
* May 12 1995 - Bill C-68 passed
* March 31 2000 - Rising cost due to registration backlogs, last minute registrations, increases in general costs, and large amount of errors for gun owners submitting applications
* August 19 2001 - Costs double due to the need of a new licensing computer system
* April 4 2002 - Costs triple from the original estimate because of law enforcement help, public relations programs, paid staff, computer system, and additional programing cost.
* June 10 2002 - Nunavut Tunngavik Inc. filed a lawsuit against the federal government.
* January 1 2003 - Only 75% of gun owners were registered by the deadline.
* March 27 2003 - Additional increase in funding
* July 9 2003 - Nunavut Tunngavik Inc. wins their lawsuit
* July 9 2003 - The Canadian Auditor General finds that the costs will succeed over one billion dollars.
* February 13 2004 - Total costs over two billion dollars
* November 4 2009 - Bill C-391 passes which scraped the registry
* November 25 2011 - Bill C-391 comes into play officially the end to the registry. (CBC, 2015)

# **Key Factors that contributed to project failure**

## Nunavut Tunngavik Incorporated Lawsuit

Nunavut Tunngavik Incorporated (NTI) is a group that ensures that promises made under the Nunavut Land Claims Agreement (NLCA) are carried out. NTI exists to protect the land, water and wildlife for the Inuits. ("About NTI | Nunavut Tunngavik Inc.", 2016)

The NIT filed a lawsuit against the federal government because it crossed the NLCA. Their argument was that a Inuit would now be required to have a license to hunt, trap and fish. This would break the NLCA. The NIT proposed to declare the licensing and fee portion of the law to be invalid for all Inuits. ("Inuit challenge gun control law", 2000) "The majority of use for firearms is for hunting, so there's no need to punish honest hunters that are trying to feed their families." ("Inuit challenge gun control law", 2000)

The outcome of the new legislation has been to temporarily exempt Inuit hunters in Nunavut until a court hears the lawsuit against the federal government.

## Costs

Originally budgeted at 119 million dollars in 1995, but the taxpayers were only on the hook for 2 million dollars.The Auditor Generals report counter stated that the gun registry cost are out of control and predicted to exceed over $1 Billion Dollars. The report also reported the inappropriate use ensures that previously planned governmental project initiatives receive proper funding to keep them moving forward to pay for the registry introduced by the Justice Department. Which the justice department hid from the Canadian Parliament.

From the time line we can look and see the increase of costs, in late 2001 costs raised to 527 million dollars after difficulty keeping track of licensing fees, Collections became the problem that couldn't be resolved without a critical change to their computer system; this caused an increase in costs due to the new licencing computer system and delays in the project, then an increase in costs to 629 million dollars (costs ranging from 62 million for police enforcement and public relations to 559 million for the technical aspect) in early 2002, and then sailing to over 2 billion by the end of 2011 after the government after continued padding from the government.

There was an increase of backlogs of current firearm registration because everyone with a firearm was holding off until the last minute to register their weapons. The last minute waiting caused an increase in costs, and fee waivers for the early applicants coupled with an high error rate in the application submitting gun registration by firearm owners. All these reasons cause delays, and cause the project to cost more.

## Factual Issues

One major issue with this project was that the project goals were not based on facts. It was claimed that the registry was necessary for protecting women. There is actually no convincing evidence to support that claim and that registering firearms reduce homicide rates overall. In fact murder rates have been gradually falling since the 70s and researchers haven’t been able to find any correlation with this and stricter gun laws. In actuality, the decline in murder rates over the past 20 years has been attributed to the change in demographics and not to the stricter gun laws. In the United States, with their less restrictive laws, homicide rates have even dropped faster than they have in Canada making hard to claim the effectiveness of strict laws.

Another claim is that the long-gun registry is an essential tool for Canadian law enforcement because records show that is was being used 14,000 to 17,000 times a day. These numbers turned out to be false and confused with another database called the Canadian Firearms Registry Online (CFRO). This database has nothing to do with the long-gun registry and is used mostly for information gathering on gun makes and models.

It was also argued that the registry gives law enforcement a clear indication of who has firearms. This is way off because there is no way to accurately register all weapons in existence There are just too many guns that can be missed. Plus the most dangerous and hazardous delinquents are not going to register their guns. Seasoned police officers have actually stated that they still have to treat dangerous people and situations as if there is a deadly firearm in play so the registry, in reality, is no help to them at all.

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Failure to do a good feasibility study

One of the project's first deliverables is a business case. A business case is very important because it makes an analysis of the organization value, feasibility, costs, benefits, and risks of several different ways the project can be approached. This helps the senior management, or the leadership in the government, by giving them all the information they need to make a knowledgeable decision on whether to give resources to the project or not. A very key part to developing the business case is a feasibility study.

Was this economically feasible? At the time this project in the original format was probably economically feasible but when things started changing so did the price tag. This project turned into a black swan rather quickly and the hope of getting it to work like the wanted did not change as more and more money was wasted.

Was this technically feasible? The idea was to get every Canadian long gun in existence into the registry. There was an estimated 15 million guns owned by 34 million Canadians. This is not technically feasible or even possible. Most civilians ended up ignoring the law because they didn’t want to be held accountable if their gun ended up at a crime scene. It is also extremely unlikely that a criminal would register their gun.

Was this organizationally feasible? Organizational feasibility looks into the impact on the organization, in this case the public as a whole. It concentrates mostly on how people will adapt to the change and how willing they are to accept that change. In this case the public was not very acceptant of this change. The government did not take into account how much trouble this law would cause.

From what is seen on the history of this project there definitely was not any analysis done on the feasible alternatives to this endeavor. The government had an idea how this should work and nothing could change their minds with a possible less controversial alternatives.

## Lack of Quality Planning and Control

The lack of quality control has led the project to sky rocket. The difficulty of tracking licensing the licensing fees collected was a huge problem for the Canadian Firearms Program. If a quality plan was in place that had specific system and design requirements that followed with a quality control check it would’ve had a better outcome. The system could not be fixed without a massive change which would require even more money.

# **What IT Project management practice or mechanisms could have been put in place to prevent failure? Were project failure areas controllable?**

## Risk management

A risk on a project is an uncertain event or condition, if the risk occurs it has a positive or negative effect on the project's outcome. Within risk management are processes that can help identify, prioritize the risks, response planning, and monitor and control. ("Risk Management | PMPNotes.com", 2016)

Risk Identification is the process of identifying what could effect the project. This process should be well thought out and within a team environment. A few questions that could’ve been asked is “What are the triggers that would determine if a particular risk is occurring? What is the likelihood of this risk occurring? A few responses can be used to reduce or eliminate the risk; Management reserves are used for when the budget is over and a discrete reserve has been set and only known by management, Contingency reserves are used within the project budget and set aside for when specific risks occur, then the last is a “plan B” or Contingency plans. (Marchewka, 2006)

Prioritizing the risks also known as Qualitative Risk Analysis. This is best done in a group setting and allows open communication with various stakeholders. One technique within the qualitative risk analysis is creating a risk impact table. What is nice about the impact table is there is an outcome of a risk score that can be used to identify the highest risks so that they can be prioritized. (Marchewka, 2006)

Response Planning is the process of creating a response plan document. It is used to document the project risk, the trigger that sets the risk off, who the owner of the risk is, the response and then the resources required to reduce the risk. (Marchewka, 2006)

If the Canadian Firearms Program had a proper risk management implemented into the project, they may have foreseen some of the risks and have a resolution to the risk without it going out of control.

## Stakeholder management

In stakeholder management, there are suggestions that a successful project requires; commitment from all stakeholders, stakeholder responsibility. A stakeholder analysis should be done to determine who will need to be won over. ("Stakeholder Analysis: Winning Support for Your Projects", 2002)

A stakeholder analysis can be done in a few different ways. Because this project affects so many, a public survey could be done, asking people on the streets, holding city meetings. Polling citizens and actually voting on the law would have been a good start to winning the public stakeholders approval.

A successful project needs all stakeholders committed to the project. The Canadian Gun Registry was not accepted by all its stakeholders and was burdened with those that did not want it to succeed causing delays and more costs in the project.

Stakeholder responsibility is the definition of assigning a risk to an owner and that owner. The owner will take the responsibility of making regular reports and monitor for new or increasing risks. (Marchewka, 2006)

If stakeholder management was used for this project, the project would have either died earlier on without the huge loss or have succeeded with revisions so that the public approved it.

## Scope Management

Scope Management is the the work that is required to ensure that the project includes only the work needed to complete the project. As project manager you need to develop a Project Scope Management Plan, which defines, documents, verifies, manages, and controls guidance for the project scope. There are several steps that need to be performed Scope Definition, Create Work breakdown structure, scope verification, and scope control. Scope definition is the process of coming up with a detailed project scope statement. A work breakdown structure is the process of breaking the whole project down into smaller more manageable components. Scope verification is the process of verifying and accepting the completed project deliverables. Scope control is the process of handling changes to the project scope. (PMPNotes.com, 2016)

How scope management could have helped the Canadian Gun registry project. Just a simple understanding of the whole project scope would have saved so much money and time. But management of the scope would have save the project period. The constant changes to the project which were outside the boundaries of scope caused the project to go over budget and schedule, and causing the project to fail. (CBC, 2012) The International Project Leadership Academy called the gun registry a “Radical underestimation of complexity and scope project.” (Firearms Registry, 2006) A successful project needs to have strict scope management.

## Time/Schedule management

Project Time Management is the process of ensuring timely completion of the project. There are several steps in managing time Activity Definition, Sequencing, Resource Estimation, Duration Estimation, Schedule Development, Schedule Control. Activity definition is the Identification and documentation of the work that is planned to be performed. Activity sequencing is the identification and documentation the logical relationship among scheduled activities. Resource estimation is the activity of estimating the quantities of resources required. Duration estimation is the process of estimating WBS. Schedule Development is the process of analyzing the scope and creating a project schedule. Schedule Control is controlling the changes to project schedule. (PMPNotes.com, 2016) A schedule was set up for the Canadian Gun Registry, but there was a serious lack of scheduling management.

## Verification and Validation

The Gun Registry software had major issues and went over budget as it was riddled with bugs. If the two companies that developed it and some sort of verification and validation to ensure the system was working before it was launched, it would have saved the project money in the long run. (Marchewka, 2006)

The verification process is to ensure the system meets all the requirements and performs all intended functions. If the system doesn’t it could result in high costs and hard to fix problems. Within the verification process are three types of reviews; technical reviews, business reviews, and management reviews. (Marchewka, 2006)

* Technical reviews will verify that the specifications are met. This can be done through peer-reviews called inspections. A walkthrough is within a group setting with technical programmers that will comment and review the code, similar to a inspection.
* A business review is to ensure the system provides all required functionally defined in the project's scope and requirements definition.
* The management review compares the baseline of the project with the actual project’s progress. The project manager can prepare reports to show visually to management.

Validation occurs toward the end of the project and is used to determine if it meets the client’s expectations and ensures it performs as expected. If the Gun Registry had testing before releasing this flawed system it would’ve caught the bugs early and prevented the disaster it did. Testing gives management the knowledge that the quality of the software is good. A few testing approaches would be Unit testing, Integration testing, Systems testing, and Acceptance testing. (Marchewka, 2006)

* Unit testing is when programmers write test files that are defined to test specific functions and catch the input and outputs to verify them.
* Integration testing is to test the logical units and if they all work together as a whole.
* Systems testing is putting it in an operating environment and testing it, this could be performance testing, stress testing and benchmarking.
* Acceptance testing is when the client assures everything is working as defined by the project’s scope. This would be hard for the Gun Registry but you could assume it was accepted after the first week.

# **Was the project a success?**

Was this project a success? The program did work and it was usable but it really didn’t provide the value that was hoped for. The cost overruns, numerous changes, politics, and the eventual complete shutdown of the project would make it a complete failure! Another way we could pose the question from what we learned in class is, “did this project provide measurable organizational value?” Measurable organizational value must be measurable, provide value to the organization, be agreed on, and be verifiable.(Marchewka, 2006)

First, was this project measurable? Measuring this project is very hard to do because it was all over the place. Having measurement provides focus for the project team. The team needs to have a definitive target and this project did not have one especially since within the first 2 years over 1000 change orders were placed. They we asked to integrate with 50 different organizations which wasn’t part of the original scope of the project. The only thing that could be measured accurately is the amount of money that was poured into this project.

Second, did this provide value to the organization? It did not. The project was supposed to reduce crime and the statistics say otherwise. As stated earlier the system did not end up reducing crime and helping law enforcement out. The registry had many database issues and was plagued with errors like duplications and false entries. There were even reports of items that had nothing to do with long guns being registered into the system like a soldering iron.

Third, was it agreed on? No, it was not agreed upon by most parties involved. The government at the time had a lot of opposition to passing the law. Three of the four opposition parties actually voted against the legislation. Many liberals indicated issues with the gun registry but didn’t want to vote against their prime minister and government.

Fourth, was the project verifiable? Yes, the project was verifiable in that it wasn’t a success. It failed on so many different levels. It was almost like they didn’t use hardly any project management techniques at all. With the checks and balance of project management history the outcome could have been very different and the huge drain of money could have been avoided.

Another way to measure success is with a good metric. Generally project metrics are concerned mainly with scope, schedule, budget, resources, quality, and risks. A good metric has many qualities including being understable, quantifiable, cost effective, proven, and having high impact.

The problem with a lot of metrics is they set an IT type of project up for failure. So why have metrics? Should they be done away with it since they will just doom the project to failure? No, metrics should not be excluded. They need to be used and play a more active role in managing the project. If metrics are used correctly used in conjunction with project management techniques they can keep the project steering committees on task, improve communication with project sponsors and the impact changes can have on a project, improve reliability of project plans, and better communicate estimates of resources.

The main metric on this project is how much money it cost. With the project’s original cost at $119 million and then ballooning to a billion dollars the thought that this project was a failure cannot be avoided. If the right project management techniques were put into play here this project’s course could have corrected and these crazy expenditures been could have been avoided.

The track record for IT Projects is not very successful and the Canadian long gun registry

is no exception. With multiple factors and issues plaguing this project, along with the major drain of resources, it didn’t have a chance. If there had been a greater focus on project management techniques such as risk, stakeholder, scope, and time management this project could have been very different. Project management is essential in helping projects stay on course, deal with risks, and become successful. Providing measurable organizational value can be attained by abiding by these processes and help future project failures become project successes.

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