

## PM WORLD TODAY – EDITORIAL – SEPTEMBER 2009

## Disruptive Events! Are you, your project or your organization prepared?

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### Introduction

Risk Management is a hot topic in the project and program management arena, and for good reason. As project complexity increases, and uncertainty grows in project environments everywhere, risks seem more widespread and prevalent. While most risk management approaches focus on potential risk events, and disaster planning and recovery are often included, many organizations seem to consider major risk events as “one-off” possibilities, unlikely to occur or to affect their projects.

I believe that disruptive events are more common than most people realize, and that they are increasing. In my June Editorial, entitled “*Global Business Intelligence for Managers of Programs, Projects and Project-oriented Organizations*,” I addressed Disruptive Events as a subject for executives and program managers to consider when gathering strategic intelligence. [1] This was also discussed in three papers that I wrote in 1998 and 1999 on the topic of how significant global trends and events can affect the project management profession, the last one presented at the PMI South Africa International Project Management Conference in Johannesburg in November 1999. [2]

As explained in my June article, a disruptive change is a significant event with drastic potential consequences. The most obvious examples might be natural disasters caused by extreme weather - a cyclone, hurricane or flood, for example. The loss of a company's data center would be a disruptive change for that organization. A change in government, as occurred with the election of Barack Obama as President in the United States in November 2008, is an example of a disruptive political change, in this case with global consequences. Other examples include stock market crash, currency crisis, breakout of war (Russia & Georgia in 2008), new technology breakthrough (iPod), bankruptcy of major corporations (Chrysler, General Motors, Lehman Brothers), major merger or acquisition, disruptive new legislation or regulations (Sarbanes Oxley in USA), outbreak of pandemic disease (H1N1 Flu this year), international belligerence (North Korea declares 1950 truce void in late May 2009), natural resources discovery (oil under the arctic), etc. The list goes on. [3]

Disruptive events can change or drastically affect a market, industry, organization, program or project, by changing the environment within which programs and

projects exist. In some cases, the immediate impact is on critical resources that a program or project needs to succeed. In other cases, the immediate impact might be on a project owner, customer or other stakeholder. In many cases, the immediate impact on a project or program might not be immediately apparent, only causing a disruptive impact after some time lapses. I now believe that many such disruptive events are likely to happen, can be predicted and should be planned for.

This article discusses disruptive events as a major risk factor, planning scenario, and expected condition for managing programs and projects. I believe that for large programs and projects, such disruptive events are more likely to occur than ever before, especially for those with international or global dimensions. In some parts of the world, disruptive events occur on a regular basis. In that case, how can you identify potential disruptive events and how should you, your team or your organization prepare?

### **Systematic Approach – Categories for Consideration**

As is common with traditional risk management, I suggest the use of categories for considering potential disruptive events. Here are some categories to consider, starting with the most obvious:

- Extreme Weather and Natural Disasters
- Manmade Disaster or Disruptions
- Human Health & Social Factors
- Significant Economic Events
- Disruptive Governmental or Political Changes
- International Geo-Political Changes
- New Technology – Technological Development
- Industry or Market Changes or Disruptions
- Legal & Regulatory Changes

Possible disruptive events in each of these categories is briefly discussed below, along with a possible planning and response model for decision making. In general, I think organizations and program managers, and managers of large or enterprise critical projects, should have an intelligence gathering process, a decision making model, and a contingency plan to deal with disruptive events. Some of these potentially disruptive events are more likely to occur in some parts of the world, than in others. In some cases, global events may affect everyone. For large global programs and projects, however, it seems prudent to seriously consider the possibilities and probabilities.

### **Extreme Weather and Natural Disasters**

Believe it or not, weather happens. And extreme weather seems to be happening on a more regular basis. As described in my September 2007 editorial [4], extreme

weather and natural disasters seem to have increased in both numbers and impact in recent years. I took up this topic again in February 2008 in "*Climate Change: What it means for the World of Project Management*". [5] Both of those articles were focused on the need for more and better project management for responding to extreme weather, and how this is an area where we can both expect more extreme weather events and where the demand for more projects and project management should increase. I concluded that line of discussion in July 2008 with "*New Frontiers for Project Management: Earth Science, Monitoring the Planet & Climate Control*". The whole other side of this topic, however, is the impact of these disruptive occurrences on existing organizations, projects, programs and project management.

This week, as we go to press, a wild fire in southern California is raging out of control, has grown to over 100,000 square acres, is destroying one of California's major national forests, and is threatening homes and communities.

*Photo: smoke from fire over downtown Los Angeles on 31 August 2009, photo by Jon Vidar/Associated Press, courtesy of National Public Radio (NPR.org)*



Last month, a similar situation existed in Greece, as a huge fire threatened Athens and some of the world's most famous historic landmarks. Hurricane season is in full swing in the Atlantic, while a category 4 hurricane is today headed for Baja California on the Pacific coast of North America. Last year, thousand of hectares of land and hundreds of lives were destroyed by fires near Melbourne, Australia. Massive floods resulting from a Monsoon devastated a major section of Taiwan this year, and are expected again throughout Southeast Asia.

Depending on where you, your project or your project team is located, you might expect some impact from an extreme weather event. If you live in Japan or around the Pacific Ocean's "Ring of Fire", you can expect earthquakes and the possibility of volcano eruptions. If you live on the coast of any ocean, you can expect hurricanes or monsoons. If you live on dry land some distance from the coast, you should monitor weather and drought conditions for the possibility of wild fires. And if you live or work near a major river, then flooding is possible. It seems to me that these are becoming highly predictable events, with flooding now occurring in parts of the Central and North America, Eastern Europe, India and Southeast Asia each year. It is ***not a matter of if but rather when*** an extreme weather event will occur in most parts of the world. Program executives and project managers should both expect and plan accordingly.

## Manmade Disasters or Disruptions

What is the impact on your project or organization when an act of terrorism happens in Europe or anywhere in the world? What if a ‘dirty bomb’ incident occurred in the United States or UK? Global security levels would increase immediately. Directly affected societies might “shut down” for awhile. Transportation and commerce might slow down or stop. Financial markets might collapse, as occurred after 9/11. What might the impact be on your team, project, organization, suppliers, customers, regulators, partners or other stakeholders?

What about a train derailment, data processing “accident”, security breach, or criminal action that affects your program or project – or project team. Will you know about it soon enough? Have you backup and contingency plans ready? What are the “life threatening” risks for your project?

## Human Health & Social Disruptions

The H1N1 Flu virus (Swine Flu) that has been labeled a “pandemic” by health organizations worldwide this year raises the spectre of a serious potential impact on citizens in many countries around the world. As Autumn semester begins at schools around the Northern Hemisphere this month, and the 2009 flu season gets underway, how many of your project workers will be away from the office for one or more weeks tending to the illness? What is the impact when a key member of your project team is ill or away from work for an extended period?



What if the disease were much more contagious and caused more serious illnesses or death? The disruption might be enormous, both locally and globally? And as we saw in Mexico and China regarding the H1N1 Flu virus this year, new health, security and travel policies might be immediately implemented, quarantines declared, and many people affected, especially those traveling to, from or through the affected cities.

*Photo: Medical officials waiting at IDI airport in New Delhi, India to screen arriving passengers for the H1N1 Flu virus*

What about social unrest for other reasons, for example, following the elections this year in Iran?

## Significant Economic Events

The global economic crisis that began in 2008 and now seems to be lessening has had significant and widespread effects on many organizations, programs, projects and people. The Asian financial crisis during 1996-97 devastated economies in the Asia Pacific region, just as the global collapse in financial markets did in 2002. Some of these economic “crises” are hard to predict. However, more localized trends and “events” may be more predictable. And some may result from actual disruptive actions.

For example, if the Chinese government were to dump their holdings of US treasuries into the market, or dramatically decrease their US dollar holdings, the effect on the US dollar as a global currency might be significant. What is the impact on global projects with contracts, salaries and revenues denominated in US \$ if the international dollar exchange rate collapses? Major mining, construction and other types of projects have been delayed or even cancelled in the past when this has occurred.

Another problem is that an economic crisis can be triggered by a disruptive event in another category, for example, geo-political conflict, widespread natural or manmade disaster, pandemic health scare or another big change.

An example of a positive disruptive economic event was the passage of the American Reinvestment and Recovery Act, whereby the US congress authorized massive federal government investments in and financing of programs and projects in every US state.

## Disruptive Governmental or Political Changes

Governmental changes can have a dramatic impact on local or even international programs and projects. They can significantly affect industry. For example, as mentioned above, the election of Barack Obama as US President in November 2008, and the victory of the Democratic party to win majorities in both houses of the US Congress, was a disruptive event for anyone closely aligned with Republican party policies or programs. Likewise, the landslide victory of the Democratic Party of Japan and Yukio Hatoyama as new Japanese president on 30 August 2009.

*(photo: Yuko Hatoyama of DPJ on 9 August)*



What changes or impacts will result from governmental changes in Great Britain, France, Germany, Japan, Mexico, Nigeria, or Ukraine?

These may all be likely scenarios. What ripple effects can be anticipated?

## International Geo-Political Changes

International affairs, and in particular international relations between and among countries, might be discounted as the source of a disruptive event that might impact your project or program. But not if you live or work in Afghanistan, Bosnia, China, Colombia, Cuba, Korea, Iran, Iraq, Pakistan, Russia, Turkey, Venezuela, the USA, the UK and many other countries. International agreement, treaties and general relations directly affect many industries, organizations, programs and projects. When something comes “unstuck” or if there is a dramatic change – either positive or negative – the impact can be significant.

For example, immediately after the Russian invasion of (short war with) Georgia in August 2008, my guess is that literally every project involving Russian/US cooperation was at risk, with project managers scrambling to understand the impact.

What are the effects on relations between European countries (and companies) with Libya, after Scotland released Libyan Pan Am Lockerbie bomber, Abdel Basset Mohamed al-Megrahi, convicted in 2001 for the 1988 bombing that killed 270 people. The Scottish justice minister let him go on "compassionate grounds" because he is terminally ill with cancer. Scotland's laws allow for compassionate release. The terrorist flew back to Libya on 20 August 2009, generating political and public outcries in Britain and the USA. That was definitely a disruptive event for someone – perhaps in the British and Libyan oil industries.

On the positive side, what will the impact be when the 40 year old US embargo of Cuba disappears, as it certainly will within the next few years - either before or immediately after Fidel Castro dies? In that case, there will be many projects launched in a wide variety of industries and locations. The same will happen when dictatorships in Iran, Myanmar and North Korea end, hopefully via democratic processes. For people and organizations in those countries, or dealing with them in any way, a series of disruptive events can be predicted. Even changes in relations between countries can have a dramatic impact, for example, if relations between

Iran and the USA actually thawed based on some big development.



This was apparently the case with North Korea when former US president Bill Clinton successfully arranged for the release of two American journalist held by the North Korean government (a disruptive event for both North and South Korea, as reflected by rapidly improved relations in the aftermath.)

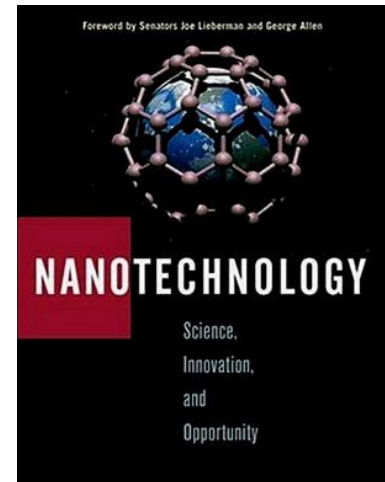
*(Photo: now famous photo of Bill Clinton and North Korean leader Kim Jong-il in Pyongyang. Courtesy of thefirstpost.co.uk.)*

## New Technology – Technological Development

What technology is used on your project? What technology is critical, is the center piece of the product, system or facility that your project will deliver in six, 12 or 24 months? What technological change could make your product or system obsolete, or result in a complete “redo”? What technology might make the result of your program or project obsolete in 2, 3 or 5 years?

What technology breakthrough might dramatically improve results, or significantly reduce costs, on your project or facility? What if the costs of wifi, or hand held computing devices, are drastically reduced? Will voice-activated computing change your role or your project? What if new materials are introduced that are cheaper, stronger and lighter than those you currently have planned for your aircraft, automobile, oil field equipment, engine, tooling, or other product?

Significant changes have been standard fare in the semiconductor, computing and electronics industries for decades. What is the impact on your project or team when another major technology advance is announced? These may actually be predictable now.



What if the cost of energy fell dramatically, say by 1000%, due to a scientific breakthrough?(this might actually be in the works!) As I explored in my March 2008 editorial entitled “*New Frontiers for Project Management: Nanotechnology*”, [7] nanotechnology is just one of many fields where new science and new technologies are being developed. It is absolutely certain that disruptive new technologies will be introduced in the future that will affect many industries, organizations and projects. Where is your vulnerability to this?

## Industry or Market Changes or Disruptions

Disruptive events occur on a regular basis in many industries and markets. The best examples might be major acquisitions, bankruptcies, contracts, mergers, partnerships, reorganizations, re-structuring or other changes. These are often the result of dramatic changes in other sectors, for example, the failure then governmental bailout of General Motors (GM) in the midst of the global economic meltdown at the end of 2008. Every program and project related to GM was affected, a series of disruptive events with equally significant results throughout the American auto industry. What does the purchase of Hummer by a Chinese machine company portend, by the way?

Yesterday, the Walt Disney corporation announced that it will acquire Marvel Entertainment, Inc. for about US\$4 billion in cash and stock. Disney will gain Marvel's animated "empire", including over 5,000 such characters as Iron Man, X-Men, Spider-Man, Fantastic Four, Thor and Captain America, among others. While from the outside, this just seems like more entertainment, it is a major deal within the entertainment field. This is especially true for those working on software, games, videos, movies and other products and services utilizing any of the thousands of Marvel or Disney characters – a "game changer" in that business.



*Marvel Entertainment characters – now owned by Disney*

Another straightforward example is related to high speed rail transport, as the USA is now launching a massive investment program amid plans to develop high speed rail "corridors" in major metropolitan areas around the country. The announcement by US Transportation Secretary Ray LaHood a few months ago was a disruptive event for those in engineering, construction, transportation equipment and other industries and organizations who develop such projects and systems. It was also a big event to city and state political leaders.

Other examples can be found in other industries in the USA, especially after the ARRA stimulus funding program was announced by the US government.

## Legal & Regulatory Changes

A new regulation or legal issue can also create a disruptive effect on organizations – even entire industries. Just ask anyone in the pharmaceutical industry, or healthcare field in the USA or Japan, regarding potential legislative or regulatory changes affecting healthcare for the aging population. If you are managing a project or program related to healthcare, the consequence or impact of new laws that change the relationship between the private and public sectors may be far reaching. A similar impact has occurred when laws are enacted to increase public access to information, require or restrict sharing of medical information, or otherwise change the rules for an industry.

Just this week, a decision was announced by the World Trade Organization (WTO) regarding a row between Brazil and the USA. The USA was accused of subsidizing American cotton farmers, resulting in the dampening of global cotton market prices, thus hurting Brazilian farmers. Brazil demanded up to \$3Billion in damages, and threatened sanctions and access restrictions for American companies and imports in a variety of industries, including construction. The WTO decision and settlement averted that latter affect, but also demonstrated the potential impact on specific industries and geographic regions of international regulatory actions.

Major regulatory changes can affect literally every industry in a given country; decisions by international bodies can have even wider ranging repercussions.

### What to do – How to Prepare

The main objective for this paper was to raise the awareness of the importance and potential impact of disruptive events on programs, projects and project managers. However, a few suggestions as to how to address this issue are in order.

### Intelligence Gathering

In order to assess the impact of a disruptive event, one must know about it or have some way of predicting such changes. This calls for some kind of intelligence gathering process. There are several approaches, ranging from increased awareness and occasional environmental scanning to more systematic processes, including the use of formal business intelligence (BI) software and services. This topic was discussed at length in my June 2009 editorial. [1]

With greater understanding of the issues, including potential risks and impacts, some attention should be given to assigning responsibility for environmental monitoring (with an eye on identifying potentially disruptive events). With an emphasis on increasing awareness throughout the organization, or on creating a learning and sharing environment, the responsibility might be communicated and shared across the team. Where more serious risks might already be apparent,

someone should be nominated “risk manager” and tasked with identifying and assessing the potential risk events.

## Planning

The analysis of potential disruptive events should be incorporated into both Risk Management Plans and Contingency Plans for every major program or project. As with traditional risk planning, each major potential risk (disruptive) event should have a mitigation or response plan, even if only outlined. Unfortunately, disruptive events often occur suddenly, leaving little time for planning. This is all the more reason to get ahead of the curve, spend some time considering the significant risk events in various categories, and documenting the potential impacts and responses.

For certain types of risks and events, lives may be saved by having a rapid response plan at hand.

## Decision Making

As outlined in my 1999 paper [2], a responsive decision making model should include three dimensions:

**Structural** – an understanding of not only internal organizational relationships and responsibilities, but also lines of communication with all key stakeholders. When something drastic happens, you need to know who to talk to and how.

**Operational** – steps to be taken immediately, depending on the nature of the event or consequence. The short term impact of a disruptive event must be understood, with appropriate actions taken to respond to either the crisis or opportunity.

**Strategic** – an assessment and understanding of the long range impact on the program, project or organization. Actions may be required related to the very survival of the project or program, composition of the team, resources used or supply chain employed, and other factors. How will those actions be determined and who will be responsible.

## Conclusion

This article was not an attempt to identify every type of disruptive event that might occur or affect your program or project. Rather I am suggesting that disruptive events are much more common than often considered, and that it is possible to prepare for many such situations. Disruptive events, both negative and positive, can have a big impact on many programs, projects and organizations. To be most successful, and to reduce the risks of a serious impact on a project, one should plan for such events, establish an environmental scanning process, and employ a

responsive decision-making model in order to both reduce the impact and/or to take advantage of such an event when it occurs.

This article was intended to raise awareness of this whole topic.

If you have a comment, question or reaction to this article, please let me know.

Good luck with your projects!

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