

: Can DSS and Decision Support technologies help reduce the threat of terrorism?

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Lest we forget. I want to remember those who died, were injured, and were directly impacted by the terror tragedies of September 11, 2001. May we all find strength to make the hard decisions we face in the weeks and months ahead.

Some of those hard decisions will relate to trying to prevent terrorism. I do think Decision Support Systems can be helpful. Knowledge-Driven DSS can be built to help profile passengers at Airports and Train and Bus Stations. Data-Driven DSS can help agencies like the U.S. Immigration and Naturalization Service (INS) track visitors to the U.S. and other countries and monitor their movements. Communications-Driven DSS can assist in coordinating police and investigative efforts. Many decisions related to who can enter a country, use services like air transportation, purchase items like firearms, or make financial transactions can be supported by DSS. The problem in building such systems is generally not the capabilities of the technology, but rather the problem lies in obtaining quality data. Data gathering for new DSS and their use can have a major impact on individual liberties and privacy.

Also, we need to realize that new uses of Information and Decision Support technologies will not completely eliminate the threat of terrorism. In fact, for some security and safety concerns low technology solutions may actually be more effective, less intrusive and much cheaper to implement. Many people are concerned that airplanes are vulnerable to hijacking and hence they are now afraid to fly. An elaborate computer-based DSS profiling system, physical security measures and even sky marshals may help reduce these fears. Some observers even advocate Data Mining and elaborate intelligence systems to check passenger manifests. These DSS might also help, but they would be costly and certainly not "fool-proof".

Both DSS and "low tech" solutions need to be considered. If our concern is that a hijacked plane will be used as a weapon, then we need to examine a broad array of alternatives for reducing the likelihood of that happening. One "low tech" solution that comes to mind is making it physically impossible for any passenger to enter the Pilot's Cabin. I've heard suggestions that a controller on the ground should determine access or that a lock should secure the cabin. Given how ruthless and brutal terrorists can be, I doubt that such approaches would work. An alternative on large passenger airlines is to only allow entrance to the Pilot's Cabin from outside of the airplane. This solution will be costly, but it is more likely to keep terrorists from hijacking an airliner and using it as a weapon. Also, a physical modification of an airliner involves a one-time cost rather than on-going costs. From a psychological standpoint, passengers would have a visible indication that a terrorist in the passenger cabin could not force or cajole entry into the Pilot's Cabin.

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Would we still need security and DSS at airports? YES. Could planes still be hijacked? YES. Could planes still be used as weapons? PERHAPS, but it should be MUCH LESS LIKELY. Once pilots are screened and safely in the Pilot's Cabin, it is very unlikely that a passenger could gain control of a plane. Both pilots and passengers would be much safer.

Any Decision Support Systems that are built to assist in combating terrorism will need to be updated and improved regularly to reduce chances that terrorists can exploit the systems. The users of the DSS at ticket counters or passport control checks will need to remain vigilant. "Human" interaction and decision maker judgment will be part of a decision support solution.

Finally, although we need to explore Decision Support options to help in the War on Terrorism, sometimes it is better to change the physical task environment and business and decision processes rather than using technology to improve decisions. If we can change the decision that needs to be made or the importance of the decision then we may not have the same concern about "poor" decisions that created the need to improve decisions in the first place.

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