

Systems fail, not people

By LEE CLARKE

"Everybody smashed; people crying, couldn't breathe. Two ladies next to me died. A guy under me passed out."

So went Reggie Clark's horrifying description of the tragedy in Chicago's E2 nightclub Monday. It was a "chaotic mob scene" as people "panicked" trying to escape.

But it was more than panic. In fact, it is misleading to call it panic at all. People were terrified, but even in their terror, they tried to help one another. Unfortunately, they were caught in a system set up to fail.

Let's add it up. Doors were locked. There was only one exit. The building was in violation of fire codes. Security guards used pepper spray and Mace. Was this a situation from which people could escape? Definitely not.

In fact, it was similar to the 1911 Triangle Shirtwaist fire in Greenwich Village. There, most of the 146 dead jumped to their deaths. At first glance, that looked like panic, but look again and we see locked doors, Fire Department ladders that weren't long enough and a poor or nonexistent fire-control system.

The E2, and the Triangle Shirtwaist factory, are examples of systems not failing gracefully. Systems that fail gracefully can have some pieces stop working without bringing down the entire system.

The U.S. air traffic control system fails gracefully because a procedure begun in 2000 tracks data so that if one component fails, another is immediately available. In January 2000, a cable on an Empire State Building elevator broke, sending it on a 40-story drop, but other systems kicked in to control the descent. It

failed gracefully.

In contrast, consider the 500,000 people who left Manhattan on 9/11 in one of the largest waterborne evacuations in history. Barges, fishing boats, pleasure boats and ferries carried people to safety. There was no official plan. No one was in charge. Ordinary people, though terrified, boarded the vessels in an orderly way. As a rescue system, it was flexible, decentralized and massively effective.

The contrast proves two points: First, panic in disasters is rare. New Yorkers didn't panic last week when Penn Station had to be evacuated; they didn't panic when the World Trade Center was on fire, which prevented the death toll from being much, much higher. That people rarely panic means leaders should trust us with bad news - about potential terrorist attacks and about disaster plans. Second, our leaders should insist that newly built systems - subways, public meeting spaces, buildings, etc. - be designed with redundancies, extra exits and alternative pathways for people to save one another.

Simply by raising our eyes a bit, looking at the larger context in which people live, and die, we can see ways to make our world safer. There's no good reason our day-to-day systems can't be designed to fail gracefully.

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