As I'm sure you've seen, there is a lot now to indicate that the world is becoming increasingly complex. Some argue that is a question of the way you look at it, and I think there's some truth to that in the sense that you could have looked at that family whose children were more likely to die than live is a rather complex situation, and that what we tried to do was make those relationships more reliable, the cause and effect more reliable; but the complexity is always there. It's just a question of putting that particular lens on your camera and then you get to see it. But it could be a mistake to say that it's *more* complex. We just simply say, well, we put on that frame, those lenses, we see the complexity and then we can address it.

However, there's also evidence that suggests that the more you interconnect the world, the more one piece, or one person living in one country is closely connected in terms of their destiny to someone living in another country, the more the rapid change and small effects can have huge consequences that are experienced by us all.

Because of the internet; because of communication; because of our capacity to travel easily across the world, time and space have somewhat been compressed, and they create the complexity. The experience of complexity might still be there in a local situation, but now, a disturbance at one place moves very quickly to another and can come as a great surprise as it moves to the other, so that the feeling of being out of control is real.

You think, for example, of something like pandemics or epidemics. Right now we're contending with what's going to happen with the Ebola virus and there's reason to be really concerned because given the nature and the level of travel, something which might have been contained in a small part of West Africa could easily become an outbreak all over the world. It could happen any minute now.

The people in charge of looking at global health are very anxious about that. Ever since we had the AIDS epidemic, we've seen the way in which these things can spread. What complexity theory tells us is that that inevitably creates surprise. It's very hard to prepare for because it happens so rapidly and you're not quite sure the vectors in which it will happen; but that it will happen, they're pretty sure.

In addition to that, just the evidence of natural and social disasters indicates that they're increasing. When you look at things like violent storms, floods, earthquakes, as well as some of the social disasters like epidemics, political upheaval, as early as 2010 the economists that did a review said that these are increasing radically.

They put it, as many scientists do, down to these system interconnections. Not only the human system becomes surprising and volatile because of these connections, but the natural system does, too, and so we're seeing more of that with notions of global climate change and the effects it can have.

Along with this, this new complexity science has been developing and it directly challenges this pervasive Newtonian machine-age thinking. In fact, it points out that instead of being able to establish causality and predictability, complexity theory says to expect the unexpected, whatever that means. Know that you can't control it, that things will emerge. They may emerge very quickly and unexpectedly.

Part of this has, as I said before, to do with this rapid interconnection through communication technology, meaning that

information moves through economies, through cultures, through institutions, so rapidly and so suddenly that we can't really manage anything within the confines of our immediate environment. It moves out in ways that are going to be unpredictable and affects people in ways that are unpredictable.

It's very unlikely we can put that genie back in the box. It's there now. It defines reality, how quickly information moves. We're seeing similarly these unrests of the Arab Spring. These unrests, which occur in particular places, not only are facilitated by this kind of information technology. As we know, Arab Spring was triggered by Facebook communication, but then, in fact, it immediately connects around the globe so that people in Wisconsin, where I was at the time that happened, students were ordering pizza and sending them to protesters in the Arab Spring movement.

Whatever they're experiencing, however it might be interpreting, there's a kind of connection and there's an impact. Now the impact isn't always predictable. You don't know that because you have an upheaval in Arab Spring that you're going to have the same upheaval, but what you *do* know is that

the sense of connection is high and that people are extremely aware of what is happening, how it's happening, and it creates this disturbance which may go in any direction.

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