# TAKING A LEAD IN THE MIDST OF COMPLEXITY

An introduction to the field of complexity
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What kind of understanding of organisation and leadership does a complexity perspective invite us to grapple with?

Take a look at a natural phenomenon by watching this 3minute clip below, filmed at sunset in the English countryside:
www.youtube.com/watch?v=eakKfY5aHmY

How are we to explain how this happens?
- Is there a lead bird, or several different lead birds or a group of birds that are setting the direction while the rest follow?
- How are we to explain the speed with which the birds wheel and turn, seemingly as one?
- Who or what is choreographing this display?

This was one of the phenomena interesting the interdisciplinary group of scientists at the Santa Fe Institute in New Mexico who were asking themselves how we could better understand the organisation we find in nature.

In 1986 Craig Reynolds developed his computer simulations of 'boids'.
He found that programming each 'boid' with a few very simple relational rules (steer to avoid crowding neighbouring birds, steer towards the average direction in which neighbouring birds are heading, steer towards where most neighbouring birds are positioned) would create the life-like effect they were looking for .

This work was introduced at a seminal conference in 1987 which helped to initiate the field of complexity science and introduced a whole new set of ideas. For example:

That networks of interacting agents *self-organise.*
That global or population wide patterns of behaviour *emerge* from the local interaction without an overall blueprint or design.
The dynamics of such patterning is recognisable qualitatively but is *unpredictable* over moderate timescales*.*
The *non-linearity* of the local interaction creates a dynamic pattern in which both orderliness and messiness co-arise simultaneously.
The most life-like behaviour is found *at the edge of chaos.*

Many disciplines got excited about this – biologists, economists, neuroscientists, ecologists, and of course those interested in the management of organisations.

In this session we will look at how this explosion of interest has influenced the field of organisational leadership. How does this challenge some of our existing ways of thinking? What does it invite us to take seriously?

In so doing I will ask what happens if we mistake life-like for our experience of life itself?

So take a look at a few minutes of the next clip which is a computer animation of a flock of birds at sunset:

www.youtube.com/watch?v=k1ZO0VbngoQ

Perhaps go back and forth between this and the first clip. Take the time to notice as much as you can about your responses to the two clips – not just what you observe, not just what you think, but also what you sense or experience.

I suggest you try watching without the influence of the music soundtracks.

What does this show us about our preference for using our representations/simulations/models and frameworks of the world rather than face the full complexity of actual experience? What happens when we take the logic that enabled us to build the models as literal explanations for how the living phenomenon happens? And then further when we attempt to build/install/implement these phenomena according to these blueprints?

If we can see both the value and the limitation of this approach, then we can ask what is involved in working with change, taking a lead, as we participate in the midst of this complexity.