

new things will be (genesis). We can also refine our estimate of when this will happen through weak signals.

The point of the above is to show that not everything that occurs is quite as random as some would make out. There are things we can anticipate. I use the terms $p(\text{what})$ and $p(\text{when})$ when discussing our ability to predict something. A high $p(\text{what})$ means we can accurately anticipate what a change will be. A low $p(\text{what})$ means we can't but we still might get lucky. We're now going to build on this by introducing two more climatic patterns — *co-evolution* and the cycle of *peace, war and wonder*.

Climatic Pattern : Co-evolution

In 2016, the rage is all about “serverless” computing. I'm going to exploit this fortuitous circumstance to explain the concept of co-evolution but to begin with we need to take a hike back through time to the 80s/90s. Back in those days, computers were very much a product and the applications we built used architectural practices that were based upon the characteristics of a product, in particular *mean time to recovery* (MTTR)

When a computer failed, we had to replace or fix it and this would take time. The MTTR was high and architectural practices had emerged to cope with this. We built machines using N+1 (i.e. redundant components such as multiple power supplies). We ran disaster recovery tests to try and ensure our resilience worked. We cared a lot about capacity planning and scaling of single machines (scale up). We cared an awful lot about things that could introduce