# **Exercises: Chapter 25**

### I. Distinctive contribution

Which of the following contains content that is distinctive of an author and, therefore, needs to be cited?

- I A paradox is usually composed of a pair of statements, each with strong reasons for accepting them, but which cannot both be true. So an absurd conclusion appears to result from perfectly acceptable ways of thinking.
- 2 In 1935 Albert Einstein and Nathan Rosen used the theory of general relativity to develop the idea that there exist 'bridges', commonly known as 'wormholes', through space-time, which connect two different points in space-time, theoretically creating a shortcut that could reduce travel time and distance.
- 3 Modern algorithms increasingly exceed the understanding of even their creators. The High Frequency Trading (HFT) algorithms eke out fractions of a cent on each trade millions and millions of times a day. At 2.42pm on 6<sup>th</sup> May 2010 the Dow Jones started to fall rapidly, at its lowest it had lost more than 1000 points. But by 3.07pm it had recovered. This was the largest and fastest swing ever. Known as the 'flash crash' it is still being investigated years later.
- 4 Virginia Woolf argued that we must free ourselves from 'unreal loyalties': 'You must rid yourself of pride of nationality in the first place; also of religious pride, college pride, family pride, sex pride and those unreal loyalties that spring from them.'
- **5** According to Leonardo da Vinci, simplicity is the ultimate sophistication.

#### Answer:

Those that need to be cited are 4 and 5.

There could be some doubt about 3. There are specific references here, like 'flash crash' that could qualify as the distinctive contribution of those who first reported the event. Of course, if it were part of the next exercise that focuses on common knowledge, it would be difficult to argue that it is common knowledge, so on these grounds it would need to be cited. Indeed, the same could be said of 2. The moral is, if in doubt, cite.

## 2. Common knowledge

Although this exercise is similar to the first, in that you are asked to identify those statements that need to be cited, to do this first decide which can be described as common knowledge, which you don't need to cite.

- I According to Buddhist thinking happiness comes not from what you're experiencing, but from how deeply or mindfully you're absorbed in the experience. It's the quality of your experience that counts.
- 2 The Apgar score, used by obstetricians to determine the danger of brain damage if a newborn infant is not breathing, consists of five variables: heart rate, respiration, reflex, muscle tone and colour, and three scores 0, I and 2 depending on the robustness of each variable.
- 3 A perfect number is a positive integer that is equal to the sum of its positive divisors, excluding itself.
- **4** A locust eats its own weight every day. A large swarm may eat 160,000 tonnes per day, enough to feed 800,000 people for a year. A locust plague can affect 20 per cent of the Earth's land area and damage the livelihood of a tenth of the global population.
- 5 On February 15<sup>th</sup> 2013 a meteor with a diameter of 66 feet, travelling at around 40,000 mph, detonated as it entered the atmosphere 18 miles above Chelyabinsk in Russia, releasing energy equivalent to about 30 Hiroshima atomic bombs. The gigantic fireball sent shock waves for dozens of miles, damaging several thousands of buildings and injuring 1500 people.

#### Answer:

Those that need to be cited are 2, 4 and 5. I and 3 can reasonably be described as common knowledge.