If it looks like a duck, swims like a duck, and quacks like a duck, then it probably is a duck.

Attributed to James Whitcomb Riley
It if looks like a duck, swims like a duck, and quacks like a duck, then it probably is a duck.
If it looks like a duck, swims like a duck, and quacks like a duck, then it probably is a duck.
It if looks like a duck, swims like a duck, and quacks like a duck, then it probably is a duck.
It if looks like a duck, swims like a duck, and quacks like a duck, then it probably is a duck.
If it looks like a duck, swims like a duck, and quacks like a duck, then it probably is a duck.
It if looks like a duck, swims like a duck, and quacks like a duck, then it probably is a duck.
Corollary: if it has the genome (DNA) of a duck, it is probably a duck.
One of these molecules generates $13B/year in revenues for Pfizer…

Torcetrapib

Atorvastatin

…Pfizer invested $1B in the other, and lost $20B market cap when it failed.
Predicting successful pharmaceutical innovations

Profiling technological maturity
Predicting successful pharmaceutical innovations
Second corollary: if it has the genome (DNA) of a duck, and swims like a duck, it is probably worth an investment.

Applications of big data:
Technological maturity
• chemistry
• biology
• medicine
Business environment
• management
• investment
• market