

# William Dembski and Intelligent Design

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## Dembski's claims

1. He claims there is a “souped-up” form of information called “specified complexity” or “complex specified information” (CSI) which is a reliable marker of design of intelligent agents.
2. He claims many human activities exhibit “specified complexity” .
3. He claims CSI cannot be generated by deterministic procedures, chance, or any combination of the two; he calls this the “Law of Conservation of Information” .
4. Life exhibits specified complexity and hence was designed by an intelligent agent (the Christian god).

## Specified Complexity

- By “complex”, Dembski just means “improbable”
- By “specified”, Dembski means “matches an independently-given pattern”
- So, for example, flipping a coin 500 times in a row and getting “heads” every time would be an event of specified complexity.
- Dembski claims “specified complexity” can only be generated by intelligence.

## What's Wrong with This Claim?

- Main problem: “improbable” with respect to what probability distribution?
- Dembski says we must rule out all naturalistic explanations
- But in practice he computes probability inconsistently
- If humans were involved, he computes probability based on uniform distribution of outcomes
- If humans were not involved, he computes probability based on what we know about how the event occurred
- The result is he can conclude “complex” at whim

## What's Wrong with Specification?

- Dembski says pattern must be given independently of instance, must be “explicitly and univocally” identified by “background knowledge” of an “intelligent agent”
- For example:

$$\begin{array}{ccccccc} \overset{2}{\underbrace{\quad}} & \overset{3}{\underbrace{\quad}} & \overset{5}{\underbrace{\quad}} & \dots & \overset{89}{\underbrace{\quad}} & & \\ \underbrace{11} & 0 & \underbrace{111} & 0 & \underbrace{11111} & \dots & 0 & \underbrace{111 \dots 1} & 0 & \dots \\ & & & & & & & \underbrace{111 \dots 1} & & \end{array}$$

of length 1000?

- But why 89? Why 73? Why 1000? How are they “explicitly and univocally” identified?
- Kolmogorov answered these questions 40 years ago; his solution is widely known and accepted. Dembski takes Kolmogorov’s solution and alters it so it is unworkable.

## What's Wrong with the Law of Conservation of Information

- In my long paper with Elsberry, I gave many examples where Dembski's supposed "law" breaks down
- Here's a simple example: suppose  $f$  is the map that duplicates the input string, so  $f(111) = 111111$ .
- If we compute probability relative to the uniform distribution of binary strings (as Dembski often does), then this map takes a string with probability  $2^{-n}$  and returns a string with probability  $2^{-2n}$ . Thus we generate  $n$  bits of CSI for free.
- There are other, more subtle flaws in his "proof".

## Dembski Does Biology

- Dembski claims “the bacterial flagellum” [sic] possesses CSI and hence was designed
- His probability calculation is not endorsed by any biologist, since it relies on a completely unrealistic model of how the flagellum arose
- He made a mistake of 65 orders of magnitude in his calculation, but never admitted it for three years
- His design detection method is at its worst when the origin of events is obscure — precisely the events he is interested in applying it to.