

The Realm of Truth

The Realm of Enlightenment Truth is robust and has strong defenders. It is protected by ancient and profound principles and activities, but they can drift or sink in the Ocean of Untruth and be drowned by corrupt purposes, if there are not active safeguards and vigilant citizens. The extent of the toe-hold in the Realm of Truth, and the fall into Bullshit* and Untruth, varies from country to country; in some, the toe-hold in the Realm of Truth is tenuous or non-existent.



Bruce Hugman

2 + 2 = 5

Two plus two makes five – or any number you please

The future of evidence in a post-truth age of alternative facts

This poster analyses some of the principal threats to the world of facts and evidence; examines the cognitive, psychological and social factors that make us vulnerable, and offers tentative directions for the campaign to restore the public credibility of the Realm of Truth

Trusted guardians and communicators · Evidence · Dispassionate secular reason · Precedence of System 2 thinking (reflective, evaluative) · Scientific method · The spectrum of uncertainty · Data
Scepticism and open-mindedness · Transparency · Peer review · Replicability of findings · The Fourth Estate (investigative journalism) · Freedom of speech · The management of bias
The evolution of knowledge · The valuing of truth as a cultural priority · Institutional integrity · Absence of political interference · Independence of funding · The admission of error

Independent research and science

Investigative journalism

Technical, academic and expert credentials

Legal, political and social institutions

Constitutional safeguards

The way forward in education and communication

The rational and information-deficit models are ineffective for many, maybe most human interactions.

We should pursue these approaches:

- ✓ Openness, transparency, honesty, authenticity, substance; economy, clarity and simplicity
- ✓ Understanding and engagement with underlying values, motives and causes for specific questions; troubles not issues (Rosen); empathy
- ✓ Recognition of individual and tribal identities; communication that does not challenge worldview or identity
- ✓ Provide liked and trusted messengers; promote authenticity, openness and humility
- ✓ Novel, agile methods of communicating in a fast-changing environment
- ✓ Co-opt the power of stories, anecdotes, pictures, graphics and emotional appeal; develop narratives; dramatisé
- ✓ Address the unpersuaded; co-opt allies and champions
- ✓ Fill the gaps in disrupted narratives (untruth is preferred to incompleteness)
- ✓ Focus on facts; assert true consensus, avoid bandwagon effects
- ✓ Encourage scepticism, critical thinking; educate in scientific method, statistics and causality

We should avoid these practices:

- ✗ Controlling, managerial, top-down bureaucratic style of communicating and tired old language of political discourse, spin; the assumption of privilege
- ✗ Cascading facts, myth-busting, branding or disparaging individuals or groups; lecturing and hectoring
- ✗ Focusing on differences, characterising others as the enemy
- ✗ Deceptive or complex statistics (relative risk, p values, etc); cherry-picking data
- ✗ Wishful thinking, short-term benefits

*...indifference to how things really are...'

This was Princeton philosopher Harry Frankfurt's definition of bullshit, in his original essay (1984), *On Bullshit*, later an influential book with the same title (2005).

'...bullshit is a greater enemy of the truth than lies are.' (Frankfurt)

Here, we employ the term to include every form of communication that disregards evidence and the truth as far as it is known, or that is dissociated from it, naively or intentionally. The term excludes lying. It includes fake news, junk science, alternative facts, spin, disinformation, propaganda, and much more. (See references for examples of academic treatment and research.)

The brave crew navigating the ship of the Realm of Truth is under threat from multiple agents in the Ocean of Untruth, most of which have little or no interest in reality. From lies to half-truths to outright bullshit, the weapons are fearsome and the potential risks to Truth's survival, serious. Some agents do have a toe-hold in fact and reality, but are all the more dangerous for their duplicity.

Cognitive weaknesses, fallacies and traps

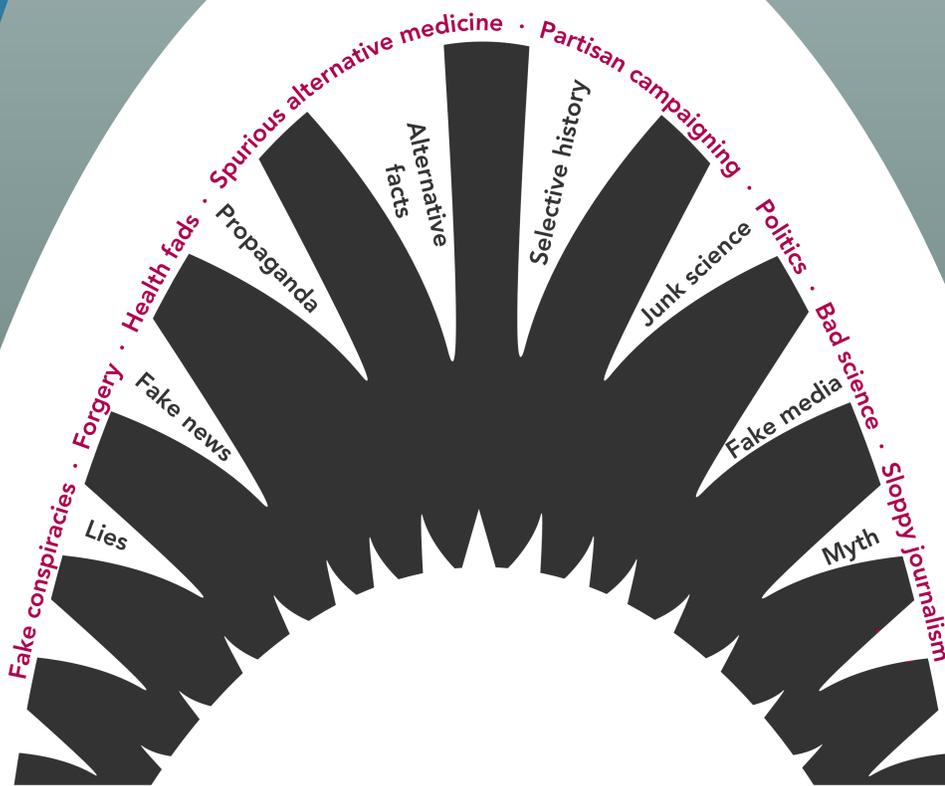
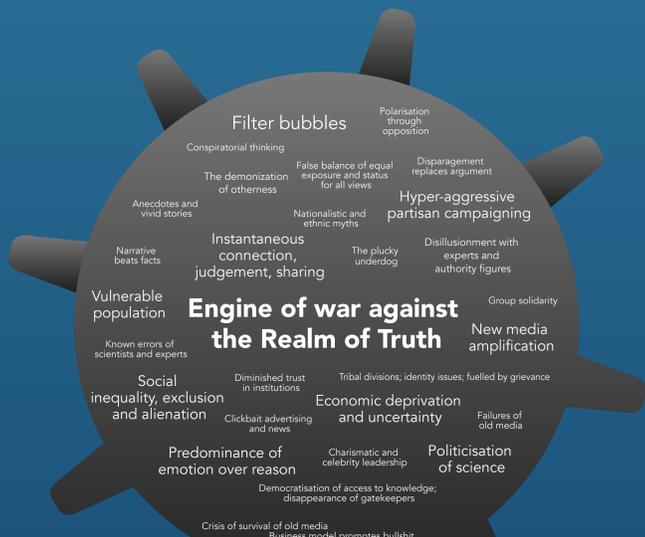
- Deliberative System 2 overwhelmed by automatic System 1 processes
- Failure to check veracity of views we agree with
- Unreliable risk assessment (over- and under-estimations)
- Irrationally differential risk perception
- Poor grasp of statistics and causality; fooled by randomness
- Vulnerability to biases and fallacies and back-fire effects

Our vulnerability: social, psychological, behavioural effects on cognition

- Dominance of rapid, reflexive System 1 responses
- Primary influence of stories, anecdotes, emotional appeals
- Group and tribal identities; belonging over truth
 - Rapid sharing and amplification
 - Charismatic and celebrity leadership
 - Confirmation bias and filter bubbles
 - Resistance to facts and evidence
 - Intensification and polarisation through opposition
- Incorrect model preferred over an incomplete one

Real and present danger

Enlightenment values and rational discourse are losing traction as fantasy and emotion seize the public mind. We are called to resist, and to rebuild the structures in which the pursuit of rationality and truth can flourish.



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This poster aspires to embody the core Enlightenment value of dispassionate secular reasoning. It accepts largely the intelligibility of nature to science and the central place of good scientific evidence as a basis for civilised living. Its biases are those of a liberal atheist.

We acknowledge with thanks the inspiration of Roger Kastel's original poster for the film, **JAWS**.

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