Wicked Thinking
How to Solve Complex Problems
Derived from: Eric Knight, *Reframe*
Successful public sector leadership needs to be transformational and strategic.
We need leaders who can unlock the inspiration, direction and innovation required for a more collaborative public service.
Outstanding leadership creates an environment that fosters performance and progress.

The Leadership Development Centre (LDC) works with chief executives (CEs) and their agencies to develop the talents and skills of current and future leaders.

LDC is a shared service which provides leadership development for public sector CEs and their agencies.

We are a membership organisation, governed by a Board of chief executives and staffed by a small team of professionals, working with the State Services Commissioner and public sector CE members to provide a co-ordinated system of public sector leadership and development opportunities.
THE BIG IDEA
We live in a complex world. Many of the problems we face are not simple problems with simple answers. Instead, they’re wicked problems. They may be difficult or impossible to solve because the problem is so complex we can not easily understand it in the first place. Think Climate Change.

SPEED RAP
The solution to Terrorism is not killing all the terrorists. The solution to Climate Change is not saving energy. To solve big wicked problems you need to think different. Solutions may be created if you start small and tinker around the edges of the problem. Little Innovation is key.

YOUR CHALLENGE
Tackle some wicked problems in your life, career, business or organisation.

Wicked Thinking
How to Solve Complex Problems
Contents: Wicked Thinking

Book Rapper Issues are not direct summaries of the books we review. We take what we consider to be the most important ideas from the book. We then re-package these key ideas so you can easily digest them in about 30 minutes. We also make it clear how you can take decisive action to benefit from these insights. In some parts we follow the book closely and in others we add our own models and interpretations. Given the Book Rapper Issue is much smaller than the book we may not cover each chapter. If you want more details than what’s in this issue, we say ‘buy the book’.
BR Review : Reframe

Eric Knight; Reframe : How to Solve the World’s Trickiest Problems; Black Inc.; Collingwood, Australia; 2012

PRÉCIS
A big picture view of some of the global issues that are filling our news with insights into what’s causing them & how they can be resolved.

FEATURES
• Great case studies on the causes and possible solutions of the global financial crisis, immigration, climate change, terrorism and funding green technology.
• An intriguing analysis on how to think about complex problems and avoid the traps of our lazy brains.

BENEFITS
• Spark ways to for you to engage with more complex issues.
• Inspire stimulating & provocative dinner party conversations
• Expose the misinformation we’re presented in the media

WHO IT’S FOR
For independent thinkers who are willing to consider what is really going on in the world and not the surface drivel fed to us by politicians and the media.

ERIC KNIGHT
• Book Rapper is calling Eric “Australia’s Malcolm Gladwell”. This book is of that quality and in the spirit of Blink and Outliers.
• His website is sub-titled: “An outsider’s view on the quirky world of politics”.
• Graduate of University of Sydney
• Rhodes Scholar - Postgraduate scholarship to study at Oxford University
• Turns 30 next year... Mmm...
• Economics consultant to the OECD, UN, World Bank
• Writes articles for a range of magazines
• EricKnight.com.au

BOOK RAPPER THINKS...
I wish I could write a book like this! A stunning analysis of the world’s most wicked problems with a clever synthesis of solutions. You’ll reconsider how the world works after reading this book.
RAP1 : Skinny Problems

PROFIT: Some problems are simple. They’re skinny problems because they can be solved with a narrow focus.

EASILY SOLVED
When you spill the milk you grab a cloth and clean it up. Then you buy some more. No use crying over something as simple as this!

SOLVED WITH A NARROW FOCUS
When you have a loose screw you need to direct your attention to slotting your screwdriver into the head of the screw and turning it in the right direction. Ignore everything else.

CAUSE AND EFFECT ARE OBVIOUS
Skinned your knee? I’m betting you fell over. With skinny problems we can easily see what caused it.

EASILY CONTAINED
If you did skin your knee, then it’s a knee/skin problem. You usually won’t have to check your blood sugar levels, your bank balance or scan your computer for viruses. It’s clear what’s relevant and what’s not.

BELONG TO A SINGLE DOMAIN
A maths problem as simple as 2+2 is going to be solved with a maths solution. It’s not about philosophy, science or history.
RAP2: Terrorism

PROFIT: How do you solve Terrorism? It’s a complex issue. Is it a military or political issue? And, as a War on Terror, what’s the best way to respond? Here, we explore some of the issues.

How do you win a War? Depends on the type of battle you’re fighting...

TRADITIONAL WAR
A big war or traditional war is like a game of chess. It’s black and white. It’s really clear who the opponent is and where they are.
Your aim is simple, take over their land or overthrow their control. Normally, this means you kill or injure them. And, you live in their territory.
It’s a physical battle and the team with the biggest guns usually wins.

MILITARY OR POLITICAL?
Is terrorism a military or a political issue?
If it’s a military issue, you use the tools you have. And military tools are weapons designed to hurt people.
If it’s a political issue, then you need visible targets so you can score a visible victory to win the minds of the public.
This the story of the shiny object.
In the case of the US and 9/11 they focussed the public’s attention on killing Bin Laden.
The simple view was that if you got him, you won the war on Terror.
In the bigger context, this missed the whole issue of what terrorism is, and what caused the current situation.

GUERILLA WAR
Guerilla Warfare is very different to traditional wars. They usually involve battles where one team is heavily outnumbered in people and weapons.
Traditional warfare is like a rugby match - it’s a direct confrontation. When outnumbered direct confrontations lead to certain defeat.
To win a Guerilla war you need to fight indirectly. The goal is not to eliminate or conquer your enemy, it’s to exhaust them.
You defeat them by exhausting them mentally and physically. For example, cut off their supply of food or perform stealth attacks - particularly at night - to disrupt them.

Traditional War is a DIRECT confrontation

Guerilla War is an IN-DIRECT confrontation
RAp2 : Terrorism, continued

Let's return to Terrorism...
Our military and political responses have not solved this problem. And, there is a third response...

GOING TO THE SOURCE
What is it that inspires people to perform terrorist attacks? Is it lack or wealth? Lack of education? Religious fanaticism? None of these stereotypes are true.

It's more likely a terrorist is semi-professional, educated and non-religious.

When terrorism is fought as a social issue surprising results occur. Effectively, you win a Guerilla War and a War on Terror by making friends.

The real issue is typically the lack of social services and opportunities for self-control through local government. When you provide these you quell the desire to strike against an enemy.

Instead of killing people, work with them so they can be happy with their lot. Fight to win their hearts and minds. It's slower, more people intensive and it works. It's been the key to turning things around in Iraq.

We can fight the symptoms of Terrorism with weapons and this will only get us so far. To resolve this issue we need to understand what is causing the problem in the first place.
RAP3 : Fat Problems

PROFIT : Fat Problems are not so easily solved. And, they require a wider focus to do so.

WE PREFER SKINNY PROBLEMS
Our thinking uses up so much energy, our brains have evolved to use shortcuts. As a result our brains are lazy - they look for predictable or easy solutions. Therefore we naturally prefer skinny problems. And one of our weaknesses is that we often see fat problems in skinny ways. This doesn’t work very well for the following reasons:

LESS EASILY SOLVED
Skinny problems are easy. Fat ones are not. Think of a complex maths problems. It’s solve-able, not easily.

CAUSE AND EFFECT ARE NOT OBVIOUS
With Fat Problems, it’s not so easy to see what is causing the effect. With terrorism and the events of 9/11, it was clearly caused by a bunch of guys hijacking a plane and crashing it into a building. Whilst tracking down those responsible is part of a short-term solution, it may not prevent a similar event from occurring again. The real question to ask is: What motivated them to do it? When you find the source, you can solve the problem more effectively.

INVOLVE MULTIPLE DOMAINS
In the case of terrorism, it’s not just a political and military problem, it’s also a social one. Plus, it’s a global issue that involves different cultures, laws in different countries, different languages and different religious beliefs. A complex melting pot!

Skinny Thinking = Narrow Focus

Fat Thinking = Wide Focus

REQUIRE A WIDER VIEW
Fat Problems are not solved by Skinny Thinking.
Skinny Thinking is like using a telephoto lens. It allows you to get up close and it narrows your attention.

In contrast, Fat Thinking is like using a wide-angle lens. It allows you to have a wider, more distant view. This way we see more of the context or landscape in which the subject is standing in.

When faced with a problem we need to choose what to focus on. Think of it as framing your photo. Do you want a close up of the subject’s face with no background? Or, do you want their entire body standing in the wider landscape? Are you focussing on the forest or the trees?
RAP4 : Wicked Problems

PROFIT : So far we’ve talked about skinny and fat problems. Now, we’re going to talk about fatter problems - Wicked Problems. They have their own unique qualities and properties.

WICKED IS NOT WICKED
We’re not talking about wicked witches here. Wicked Problems are not evil or bad, just really complex and resistant to being solved.

HAVE MANY DIMENSIONS
Skinny problems are one-dimensional - they can be solved by viewing them in a single snapshot. Fat problems are two dimensional and need a wide angle lens to view and resolve them. Wicked problems have multiple dimensions. And we need to view them from multiple perspectives and even this may not be enough to get the full picture.

MAY NOT HAVE A DISCRETE SOLUTION
Generally, Wicked Problems require some level of design thinking where the search is for the management of the situation rather than a complete solution eg manage an illness rather than cure it. Or, in the case of climate change there is no one solution.

ARE CONSTANTLY CHANGING
Consider the flu virus. It mutates so quickly the drug companies don’t have time to research and deliver a new drug to cure it.

INVOLVE MANY DOMAINS
As we saw with Terrorism, it isn’t just a political or military problem. It’s also a social problem. Plus most of our bigger issues today are complicated by globalisation. It’s not one country having to align its thoughts and actions it many. The Euro zone crisis is a good example of this.

Wicked Thinking requires viewing the problem widely from multiple viewpoints. And, even then your view is likely to be incomplete.

WICKED EXAMPLES
• Strategy in a large organisation
• Knowledge Management
• Uncovering how our brain works
• Managing your health
• Designing a large building
• Planning a City
• Refugees and Asylum Seekers
• Stopping Pandemic Influenza
• Finding a cure for AIDS, Cancer
• Resolving Drug Trafficking
RAP5 : Climate Change

PROFIT : Climate change is an important global issue - unless you’re a sceptic and then it’s not... Anywho, it’s a great example of a Wicked Problem. Let’s unravel the issue to see if we can find a possible resolution...

MAKE IT VISIBLE

Climate change is a difficult problem to see. So, the first thing that’s needed is to make it visible. Facts are useful and an experience of the problem is better.

Firstly, Climate Change is a slow process - we can’t see it happening. When we look out look out the window we see weather but not climate. It’s a different thing. And, the weather is constantly changing anyway.

Plus, the explanation of the greenhouse effect is that people think it means it will be hotter all the time. Not so.

This is why the conversation has shifted from weather to carbon.

WHO ARE YOU GOING TO BELIEVE?

Either way, whether we talk about weather or carbon, we have the same issue. If we can’t see the problem how do we know it exists?

This question really comes down to who are you going to believe.

There are three dominant beliefs systems in our world at the moment: Science, Religion and Politics.

Which one are you going to believe around climate change?

If you listen to the scientists they are very clear. There is scientific evidence that confirms climate change is taking place. The problem is the scientists are the only ones who really understand the science. That’s their job!

CAN YOU TRUST IT?

Whilst the scientists are very clear, it’s not so clear for the rest of us.

And, that’s because of an intellectual idea of profound importance that is rarely discussed in the mainstream.

Science has been politicised through the way it is being funded.

Traditionally science was peer review and self-regulated.

Now, very narrow research that presents a biased view is being undertaken.

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RAP5 : Climate Change continued

NO-WIN SITUATION
If you don’t know who to believe or who to trust, then this brings us to a no-win situation.
The debate has turned into a battle between the believers and the sceptics.
You either believe there is a problem or not. And, this presents an impasse because if you don’t believe Climate Change exists then no action is required.

ADD A THIRD PARTY
So who is going to tell us about the science?
Effectively we bring in another party called the media to translate it for us.

THE BIAS CONTINUES
And, unfortunately, media outlets are businesses so they have their own form of bias with regard to climate change. The point here is not that the media or business is more or less biased. We’re all biased and operating from our own self interest.

SUPER WICKED!
Then, if you want to overlay this with a global context of different media and different business and different politics in different cultures, then you can see the makings of a super wicked problem.
ONE MORE THING...
And, there’s one more thing we have to address... Climate Change is often presented as a disease of excess. If only we all stopped driving our cars, then climate change might just go away.

RICHES AND CLEANER
Studies show that industry is significantly cleaner than ever before. Do a Google search for a photo of a 20th Century smokestack if you want to see how far we have come. We just need to go further!
And, here’s the modern evidence...
France have reduced their Carbon Emissions by 70% from 1971 to 2007.
That’s a mere 36 years.
And, most of this was not aimed at reducing their carbon footprint, it was simply producing more efficient energy.

CUTTING GETS YOU SO FAR
A hairdresser will tell you can only cut your hair so short. And then you run out of styling options.
Likewise in business. Reducing your costs is useful and there is a limit to restraint. Eventually you need to grow your business too.
Cutting our consumption is useful and it’s not enough to solve the problem.
And, here lies the solution to Climate Change...
IS GROWTH THE ANSWER?
Ironically, economic growth may be the key to Climate Change. In particular, economic growth driven by innovation. If we can stimulate ‘green technology’, we’ll simple replace the carbon technology with non-carbon technology.

WAIT, THERE’S MORE...
If innovation is the key to resolving climate change, which type is best? Big Innovation or Little Innovation?

THINGS DO CHANGE
Two examples of previous Climate Change negotiations signal the shift in direction and process.

The Kyoto Protocol was developed in 1997. It was a big stick or Big Innovation approach that said we must all meet this deadline.

The issue of Climate change is too complex to attempt to control it with a top-down approach.

In contrast the Copenhagen Accord signed in 2009 took a different approach. It was only two pages long. Essentially, it gives the power back to the member countries and says ‘Do what you can do’. And, we’ll keep you accountable for that.

FINALLY...
There is no one solution to Climate Change. It’s a wicked problem. And, we can contain the impact of Climate Change through a lot of small innovations...

And, the same applies to any Wicked Problem.

We may not be able to design a single solution for them and we can tinker around the edges with small innovations that together sufficiently resolve the situation.
Context: Wicked Futures

In the late 19th and early 20th Century physicists began to explore the world of the atom. It unlocked entry into a world beyond our senses. It was a world that we could only experience conceptually. Wicked Problems present the same challenge. Whilst we can experience their effect, they’re too complex for us to see, hear and fully grasp. To manage our Wicked Futures, we explore some of the influences making the world more complex. And, some of the skills, capabilities and competencies you could develop to assist you in working with Wicked Problems...

WICKED DRIVERS

- **Globalisation** - more people from different cultural backgrounds, speaking different languages with different customs interacting more often.
- **Global Decisions** - more decisions at a global level will need to be managed that impact multiple countries and regions, eg Climate Change, War, Resource Allocations.
- **Digital Connectedness** - more people and more things are being connected digitally and when one changes it updates and impacts the next.
- **Data Explosion** - more data is being collected everyday ranging from internet activities and product purchases through to recordings in CCTV cameras.
- **Innovation Acceleration** - faster prototyping for new products and ideas accelerates the process of creating ever more new things.
- **Transhumanism** - more technology adaptations incorporated into the human body including chip implants multiply our capabilities.
- **More knowledge** - the simple creation of new insights has a flow-on effect of creating even more knowledge.

WICKED SKILLS

- Design Thinking
- Experimentation
- Big Picture Thinking
- Intuition
- Pattern Making
- Trend Analysis
- Collaboration
- Conversational Technology
- Conceptual Mapping
- Being with Uncertainty
- Resilience
- Acceptance of Not Knowing
- Flexibility of Response
- Creating Possibilities
- Working with Incomplete Information
- Process Driven Solutions
- Crowdsourcing
Want More?

PROFIT: Here’s some more resources so you can dive a little deeper... It includes some related Book Rapper issues to rap your head around... And, the ultimate ‘more’ - buy the book!

THE GREAT BUSINESS GESTALT
A look at the impact of Web 2.0 on your business strategy. Plus the blurring of business activity between customers, in-house divisions and online functions.
Derived from Amy Shuen’s Web 2.0: A Strategy Guide.

EYE CREATE
If innovation is one of the keys to resolving wicked problems then understanding the neuroscience of how we do it at a personal level is crucial.
Derived from Gregory Bern’s Iconoclast.

DESIGN ADVANTAGE
Design Thinking is creeping into the business space and this RAP explores how you can use it.
Derived from Roger Martin’s The Design of Business.

BUY THE BOOK!
We only select one book each month to RAP so you know it’s great!

Buy Reframe on Amazon
Your Wicked Action Plan

PROFIT: Feeling Wicked? Here’s your chance to put yourself to the test by taking wicked action...

Expand

What’s your problem? Start by writing it down in all its glory. Write down and expand your thoughts. This will be the fuel for the next steps.

Explore

Then review this RAP and explore these aspects of your problem...
- Is it a Skinny, Fat or Wicked Problem?
- Is it easily contained? And, where is the boundary to the problem?
- Which domains does your problem live in? Is it one or several?
- Is Cause & Effect obvious?
- How are you viewing the problem? Narrowly? Widely? From multiple perspectives?

Unravel

Now, it’s time to unravel what’s causing this situation. Dig Deep. What is the real cause of the problem? And, what’s causing that?

Design

Finally, let's get creative and start designing alternative ways to solve the problem. Remember, you may not need to fix the problem for good, simply manage it so it no longer has a hold on you. Start with small solutions and implement quickly.