

Course: Unraveling Complexity
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Week One: Introduction

Unfortunately, I missed the first two weeks of class because I was still in Sweden. I have done all of the required readings and have listened to the recordings.

Key Questions from the lecture and the reading:

Voluntary Student Unionism, ongoing alterations to student loans, the History Wars, political appointments to senior posts— as long as Australian universities rely on the Government for funding, they will remain political footballs. In light of this I have three key questions:

How can Australian universities protect themselves from:

- a. Being marginalized by the whims of business and Government?
- b. Being undermined by accusations of subversive elitism?
- c. The consequences of the higher education bubble? That is, when the inflated fees paid by international students can no longer be relied upon to cover any shortfalls in Government funding.

Reflection: What are Universities for?

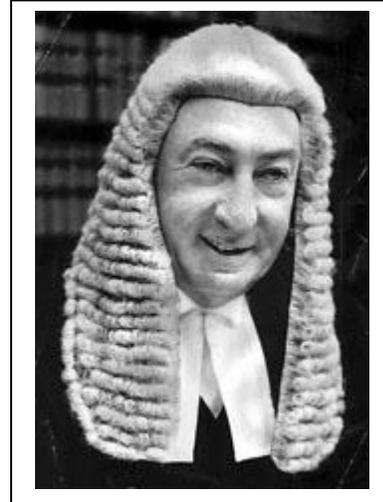
I had an interesting discussion with Michael McKinley, my political science lecturer at the time, regarding the various roles to be played by universities in a national strategic and security setting. We concluded that place of universities is fraught, because there are so many various expectations as to the role which they will play.

- 1) Enlightenment ideal: The university is an ivory tower - a neutral and objective institution, in which the subject matter and the observer are successfully divorced. In this instance, a pure research facility that doesn't debate or critique, just presents the facts as requested.
- 2) Supporting the edifice of state: They concentrate talent, innovation, skills and resources to hopefully generate qualified participants in the labour market. A Marxist critique would suggest that universities simply perpetuate the existing capitalist economic system. Similarly, Weberian traditions predict that professional socialization shapes both economic interests and an individual's belief about the causal and moral order of the world. Theoretically, by ensuring that students will be burdened with large debts upon their graduation, students will have a vested interest in maintaining the status quo so that they will be able to enjoy the fruits of their labour.
- 3) Conscience of the nation: Incorporated within the state, the university provides a forum to view society, articulate disagreement and draw upon its own academic resources to act as an agent for change. For instance, my Legal Theory course emphasised the role of academics in recognising and criticising "wicked laws." However, this can also lead to accusations of universities exceeding their role.

Lionel Murphy: Law freed from blinkers

I was interested in doing this course after reading a biography of Lionel Murphy. Murphy was a polymath who held degrees in both law and science (when this was rare) and had, during the course of his career, sat in all three branches of the Australian Government. Although his later career was embroiled in controversy, it cannot be denied that during his time as Attorney General and later as Justice of the High Court, he used his time and skills to achieve many important outcomes, including:

- The Family Law Act
- Introducing the Private Members Bill which abolished the death penalty
- The Racial Discrimination Act
- The Trade Practices Act
- The Environmental Protection Act
- Establishing the Legal Aid Office and the Australian Law Reform Commission
- Creating the senate committee system



Part of his success can be attributed to his ability to draw upon a diverse knowledge base to recognise gaps in the existing legal framework and to rely on his training to fix these gaps appropriately. I hope that this course will provide an insight as to how to attain similar skills.

INTRODUCTORY SURVEY

Democracy and the rule of law requires the perception of fairness, but how do you incorporate the interests of those who, because they are often invisible to the mainstream, can sometimes fall through the cracks?

- The homeless
- Prisoners
- New immigrants

How can these people, who are often both the victims and examples of Australia's system failures be given a voice? Lawyers can work both at the grass roots level and at the macro scale, by either championing an individual's cause or implement change within the structure of the system itself

Week Two: Wicked Problems

I have chosen to use Jason Clay's public lecture entitled, "*How big brands can help save bio diversity*" to both identify a contemporary wicked problem, but also the diverse approaches to such a problem.

- 1) **Clay identified the correct problem:** The main concern was not population growth per se - the average American consumes 43 times the resources of an average African, but a need to alter lifestyles and consumption trends in an effective and speedy manner.
- 2) **He observed the system and selected the most effective stakeholders:** There are approximately 6.9 billion consumers on this planet, 1.5 billion producers and nations are proving reluctant. Rather than attempt to deal with the problem from the consumers back along the production line, Clay inverted his reasoning. First, he identified the top 35 biodiversity hotspots and the 15 commodities and industries that posed the greatest threats to these areas. Clay then identified the top 100 companies, who collectively controlled 25% of the market of the selected raw commodities, giving these companies the power to influence 40-50% of later production.
- 3) **He framed the problem to align key stakeholders' interests:** By making the question of sustainability a pre-competition choice, Clay sidestepped many of the problems that had faced other attempts at sustainability. He demonstrated that because these companies held such a large share of the market, the greatest threat to these businesses was not an increase in price, which could be passed on to consumers, but the risk that the product around which they had based their business would no longer be available. He then organized meetings to establish an agreed global standard for the commodities that incorporated environmental interests.
- 4) **Results:** One company, Cargill, discovered that they can double their global production of palm oil, simply by using land in Borneo that has already been degraded. They are currently in the process of receiving third party certification for the sustainability of their products. One of Cargill's largest export markets is China, and shortly all palm oil exported to China by Cargill will be sustainable.

Reflection on the Lectures & Readings

Although it was interesting to learn about the framework of wicked problems, it was not something that I found particularly radical. It seemed to simply help you place your problem into an appropriately labeled box. However, I did find the reading on the Black Swan eye opening. The exhortation to focus on negative space ("what you don't know is far more relevant than what you do know") was an approach that I had not encountered in my degree and drew together many half-formed thoughts of my own. The simple articulation of the concept into rarity, extreme impact and retrospective rationalisation

can be used to describe much of my Political Science degree. Indeed, the description appears to be true of most fields of academia, with the difference in retrospective rationalizations accounting for a large proportion of controversy within academic circles.

I found his discussions regarding the errors in our retrospective rationalisation surprisingly heartening. The crux of his argument boiled down to the fact that it is not that we do not learn from history, but that we consistently learn the wrong lessons. I have yet to have a lecturer be as candid as to the limitations of his own field or the validity of his explanation. Perhaps I should raise this with them in future.

TUTORIAL TICKET

Wicked problems facing Australia: Water, Education, Healthcare.

- 1) I would include the treatment of Indigenous Australians, however it seems that the immediate practical concerns are covered by education and healthcare.
- 2) These problems each occur at the state level, why?
 1. State governments attempt to tackle a shared problem individually
 2. State governments don't have the same financial resources to draw on as the Federal Government.

Which is the most wicked problem? Water.

- 1) It is a Black Swan issue: children are taught that because of the water cycle, water was a never ending resource, but fossil fuels will inevitably run out. However, the dams were almost empty, but petrol is still readily available.
 1. The last major drought of this nature occurred over the period of Federation & caused enormous social change and upheaval.
- 2) Every person and business in Australia is reliant on water in some part for either their lifestyle or livelihood.
- 3) There is very little that can be done to solve it except to hope for rain, but there are many views on how it should be managed in the mean time.
- 4) There are profound consequences should this problem not be resolved.

Week Three: Systems & Networks

Questions:

- 1) **Can you have a complex system that is not a network?** Not really, because networks are simply a means of describing the relations between objects. For something to be a complex system, it must arguably be comprised of more than one part. If something is comprised of more than one part, that complex system must therefore also be a network.
- 2) **How is this relevant to law or political science?**

Reflections

I enjoyed reading the article on Democratic Peace Theory, because it explained the impact of networks in a way that was relevant and accessible to me. Until this article I understood that, yes, networks were a simple means of demonstrating relationships and yes, it was remarkable what complex systems could achieve in physics, biology and economics. However, it was unclear to me how this could be relevant to my studies in Equity, for instance. Perhaps this is more of a comment relating to pedagogy than course material, but I was searching for *why* this paradigm was relevant to either law or political science. It did not seem adequate to merely state that these fields were a) examples of networks or b) part of broader networks themselves. I wanted to know *how* this information could be used effectively.

It is for this reason that I have attempted to apply systems and network thinking to questions that have underpinned my political science degree:

- 1) **How can you ensure effective communication and representation in a democratic system?**
- 2) **How can a politician most effectively access the community they seek to represent?**

Incorporating New Media Technology into Political Campaigns

Political strategies that successfully incorporate new technology often have a significant advantage over their competitors. One early example is the advantage that JFK's success television gave him over Nixon during the debates. How could this be applied today?

- 1) **Possibilities of new media communications technology**
 - a. Access to a new network that provides a quick means of disseminating your message to your supporters instantly, especially those immune from traditional campaign techniques.
 - b. A tool to enable you to tap supporters for resources.
 - c. A forum for your supporters to interact with each other and possibly bring in new supporters.
- 2) **2004 Attempt:** John Kerry was initially successful, with the Washington Post putting his internet based donations at \$10 million a month, compared with \$8.7 million for Bush. However, he did was unable to fully use the grasp the potential of the new technology and was unable to use it to disseminate his message with any effect. The new network could only assist, not revive a flagging candidate.

- 3) **2008 Success: “Agility & Observation Loops”** Barack Obama illustrated sophisticated adaptive behavior: instead of using the internet merely a new forum for seeking donations, Obama’s camp took advantage of popular social networking sites and instant messaging services to have constant, direct contact with his support base. The use of the internet as a medium provided Obama’s campaign with the agility to directly respond to criticism and create political momentum that synchronized with the broader, traditional campaign. As noted in the lecture, a system is strongest when it allows for a degree of individuality, whilst striving for a unified goal.
- 4) **Relates back to Complexity?** A campaign’s purpose is to garner as many votes as possible, a demand which places an emphasis upon attaining diversity of sources. However, the focus must remain either upon the candidate or a key policy issue, suggesting that a successful campaign is an illustration of a radial network.

TUTORIAL TICKET

Readings: I had no difficulty with the language of the readings, but found the following ideas quite illuminating:

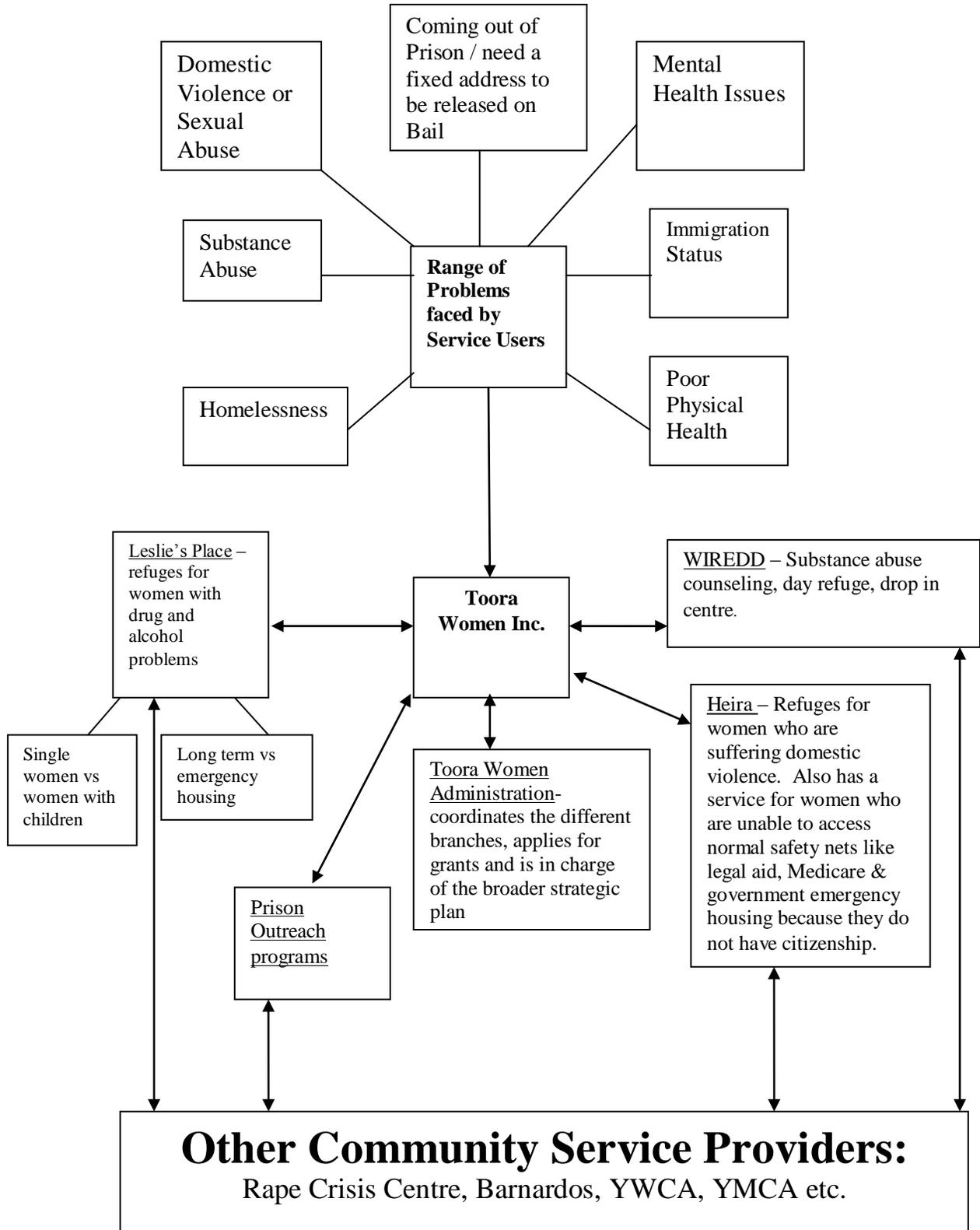
- 1) Adaptive behavior- the ability of a complex structure to learn via observation and repetition.
- 2) The different strengths of various networks: how determining whether something is, for instance an interlocking or radial network can predict both information diffusion and relative stability.

I also appreciated the inclusion of Democratic Peace Theory. Although the lecture’s emphasis upon technical examples was interesting, a lot of it went over my head. Placing the discussion of networks into a political science framework helped to illustrate concept’s versatility and its application to non technical fields.

Description of the complex network:

I work at a community sector organisation that protects women in crisis. Toora’s primary focus is to work with the government to give immediate practical support, rather than broader policy development. The problems facing Toora’s service users can be both wide ranging and highly specific to the individual, which is why Toora favors a relatively decentralised model. As noted in the engineering lecture, it is sometimes useful to break down a large problem into smaller components. Without oversimplifying the problems facing service users, each branch of Toora is relatively autonomous and has a specific field in which it is responsible. It is not illustrated, but Toora also co-operates within a framework of other community sector organisations, such as the Rape Crisis Centre, the YMCA and Barnardos.

How Toora Women Helps Service Users



Week Four: Empires

The Lectures & Readings

I was lulled into a false sense of security by this week's material, because it seemed to be fairly consistent with the courses that I had done in history and international relations. However, upon reflection I now realize much of my law degree is also a study of Empire. Although I do not agree that Law constitutes an empire in its own right, as was suggested in my tutorial, the fact remains that Australia has chosen to adopt and adapt a key pillar of the British Empire, the common law, to our own needs. I now regard empires, not as interesting, but essentially self contained areas of study, nor as something that is inherently good or bad, but simply as another form of network. A network that can be defined by the way in which the relationships of dominance, power and centralized control are articulated.

Key themes of the tutorial:

Is collapse an absolute concept?

We had encountered the concept of collapse the week before, when we were examining system failure. As demonstrated in our construction of marshmallow and spaghetti towers, the removal of key hubs could cause the structure to collapse. However, this did not necessarily mean that all of the links tying the structure together spontaneously disappeared. Many of the non structural hubs remained connected, a metaphor that can be applied to empires.

Long after the edifice and power of an empire has disappeared, traces and support structures will remain. The Romans are remembered by their ruins, their language, their laws and their art. Carthage, which was systematically destroyed, lives on in history and myth. Kodak may be reduced to selling disposable cameras. However, even if they had gone under completely, there is still significant cultural memory and physical reminders of their presence. Although there may be many different methods of determining collapse: either relative to another empire or to its former self, collapse is not an absolute concept. The presence of an empire tends to both leave physical reminders, but also influence the actions and behavior of their successors.

Are collapse or resilience inherently good or bad?

History is often a means of using the past to provide insight into the present. For instance, the Victorian scholars who wrote about the fall of Rome did so in dark terms, emphasising the transition from order to chaos, starvation and ignorance. Now, it may be possible that these things did occur, but it is worth recognising that these scholars were not objective in their statements. It was undoubtedly in the interests of the Victorians,

who sat at the heart of an empire upon which the sun never set, to depict the collapse of empire as a terrible and destructive event.

The importance of adaptability

One of the signs of a successful empire is its ability to adapt when circumstances change. During the lecture on Wicked Problems, it was noted that unlike individuals, organisations often have a great deal of trouble predicting to and responding to Black Swan events. Although Shell's ability to swiftly adapt to higher oil prices during the oil shock placed it ahead of its competitors, other organisations are not so successful, with music and video stores are gradually becoming redundant as customers move online.

TUTORIAL TICKET

Kennedy's introduction reflects the common assumptions of the "Realist" school of thought:

- 1) Power is a zero sum game: any advance must necessarily come at expense of another.
- 2) Inequality is inbuilt and perpetuated by the international system – in an anarchic system, might is right.
- 3) Successful nations:
 1. Are not Black Swans, but can be traced to a predictable pattern that can be applied to any nation regardless of cultural or social norms.
 2. Can be evaluated according to a set criteria
 3. The structure of his criteria reflects western cultural imperialism and naturally conclude that the "West" were better at meeting this pattern.

Law & Empire – Legal Pluralism over time

One of the primary exports of the British Empire was the Common Law system: it proved to be a key means of enforcing both British Colonial dominance and legitimacy. However, the experience of Colonies differed. Australia was deemed *Terra Nullius* and the British Common Law was imported wholesale, with no regard for the pre-existing legal structures of the Aborigines. However, the British approach in Malaysia was quite different. Instead, a hybrid law was created which attempted to merge aspects of the British law with those of the existing customary law, subject to the approval of the British justice system. Yet, despite these different approaches, both Australia and Malaysia have retained their Common Law heritage. Why? The Common Law is a flexible device that can be adapted to suit changing cultural and social developments – for instance, it took almost 200 years and much political debate, but the Common Law no longer regards Australia as being *Terra Nullius*.

Week Five: What is Development?

Development is a remarkable area where important questions like, “does it work?” cannot be answered with any clarity or succinctness. I have just spent two hours today running a tutorial examining in precise detail, exactly how complicated it can be!

The overarching theme in development seems to be that no one is particularly content with the status quo, but (apart from a few radicals) stopping it would be unthinkable. Similarly, there are too many conflicting alternative methods and no clear means of evaluation to choose a viable alternative. Instead, development exhibits all the characteristics of a wicked problem: there is no right or wrong answer, the problem is constantly shifting and there are a multitude of stakeholders, all of whom are demanding separate and sometimes mutually exclusive outcomes.

I have previously touched on the concept of aid and development during my studies of Papua New Guinea, but I was very interested to observe how people engaged with this topic. For many, thinking critically about something that should, on the face of it, be an unmitigated positive was a new experience.

Indeed, one of the highlights of my tutorial was when different members felt comfortable enough to discuss their own personal experiences with development. I had set a reading by Tim Anderson, which discussed Cuban involvement in East Timor. It was a welcome surprise to discover that one of my peers had actually experienced this program when it had been applied to his home town in Venezuela.

It was an unexpected privilege to hear his account of how the aid program operated in practice. Unfortunately for all Tim Anderson’s idealism, what had appeared so marvelous in the readings failed to truly live up in practice. Instead, it operated like many other forms of aid and seemed designed to address concerns about maintaining political relations rather than effective healthcare.

Two of the biggest concerns that my peers raised during the course of the tutorial were:

- a) a tendency to dismiss an issue off hand or refuse to engage with a topic because they saw it as a matter of semantics
- b) a reluctance to use the framework established in the first three weeks regarding complex problems and networks, because they could not see how these tools could add anything further to the topic or vice versa.

Curiously, for a course dealing in complex problems, both of these had relatively simple solutions. The first problem emerged in relation to the article *Seeing the world differently* and the question it had raised about whether or not the third world still exists. For

individuals who had not had much experience with the topic, it seemed like a tedious question with an obvious answer. However, once we were able to unpack the ideas surrounding it and explore modern examples of the changing power dynamics, the reasoning and significance behind the question became much clearer.

The second problem was the natural response of an individual who is faced with a seemingly impossible task. Although interesting, the ideas created in the first two weeks were very abstract and self contained, whilst the topic of development is so large and unwieldy that it seemed almost impossible to find a way to tackle to two together. Often the greatest difficulty in our discussions would be in framing things in a manner and scope that everyone agreed upon. Once the groundwork and definitions had been laid down, discussion could continue.

Sometimes a clear and thorough definition could not be reached. In these circumstances, it was enough to be able to ground the discussion to a specific case study. Although case studies cannot capture all aspects of a complex issue, they can act as metaphors for the problem and provide a suitable starting point.