

Planning for and managing “wicked problems”

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MPP1 Conference

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Territorial acknowledgement

The University of Waterloo acknowledges that much of our work takes place on the traditional territory of the Neutral, Anishinaabeg, and Haudenosaunee peoples.

We recognize and pay respect to First Nations and Métis people, and their traditional and/or current geographical territories on which we live and work.

Our main campus is situated on the Haldimand Tract, the land granted to the Six Nations that includes six miles on each side of the Grand River.

Our active work toward reconciliation takes place across our campuses through research, learning, teaching, and community building.

Today's conversation

What is this "planning" thing?

The journey to resilience

Understanding "wicked" problems

So...what should we do?

Some considerations

Key takeaways

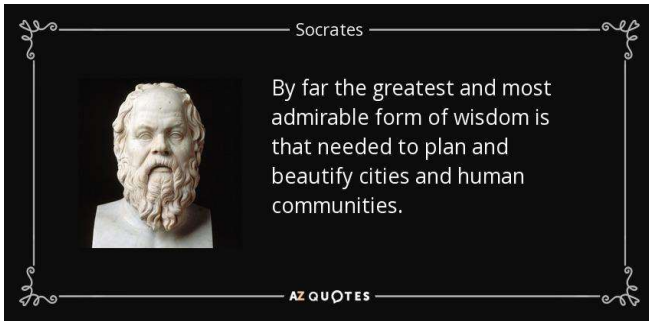
Skill-testing question!

Skill-testing question: what's a "wicked" problem?

- A. It has a clear and straightforward solution
- B. It is predictable and linear in nature
- C. It is complex and interconnected
- D. It can be resolved using traditional decision-making methods

Source: <https://www.chegg.com/homework-help/questions-and-answers/characteristic-wicked-problems-clear-straight-forward-solution-predictable-linear-nature-co-q132560028>

A word about Planning...



Source : AZ Quotes . *Urban Planning Quotes* .

There are **known knowns**; there are things we know we know.

We also know there are **known unknowns**; that is to say, we know there are some things we do not know.

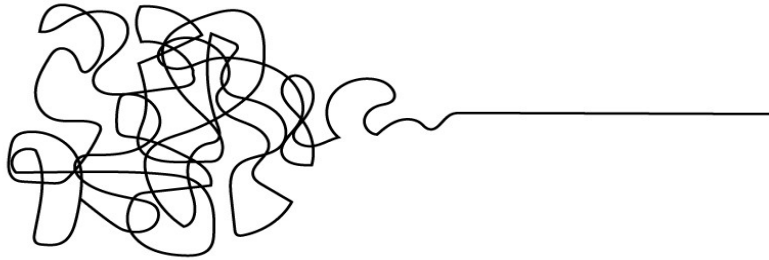
But there are also **unknown unknowns** – the ones we don't know we don't know.

US Secretary of Defense Donald Rumsfeld, 12 February 2002

Our job - making sense of things...

UNCERTAINTY

FOCUS

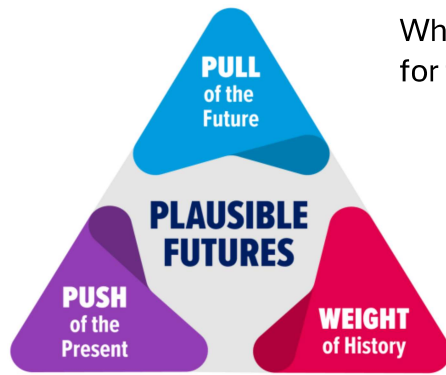


DISCOVERY

DESIGN

DELIVERY





When we plan
for the future(s)...

Source:
<https://knowledgeworks.org/resources/futures-thinking-how-drivers-change-futures-triangle/>

Let's agree that...

The future will *not* be the past

We live + work in times of considerable *turbulence + uncertainty*

At the same time...lots of *opportunities* as well as *challenges*

Need to contemplate *possible futures + prepare*

But, most of all...



*We need to create
resilient communities*

About resilience...here's what it is

It's about *adaptation to change or trauma*

It's about *understanding* what happened, why, and what it all means

It's about the ability to *anticipate* and to *move on* to something different, and maybe better

It's about *hope for the future...*and taking action to get there...*permanently*

...and here's what it's not

It's *not* about *business as usual*

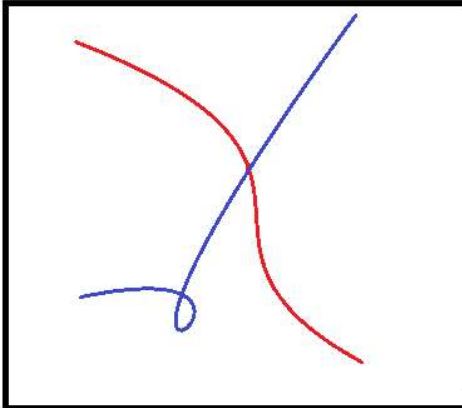
It's *not* returning to the old life, *old ways of doing things* and looking at the world

It's *not* ignoring lessons learned

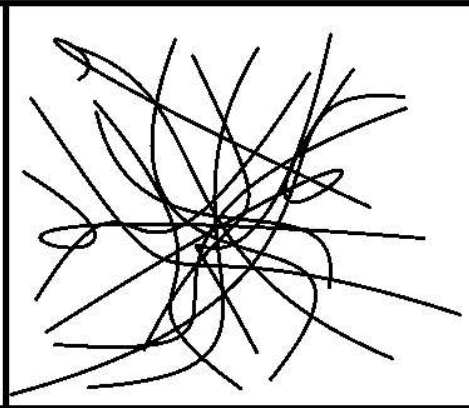
It's *not* about denial or pretending none of that stuff happened

*Resilience starts with
learning how to plan for
and manage “wicked” problems*

So, what makes a problem “wicked”?



Traditional Problem



Wicked Problem



Dilemmas in a General Theory of Planning¹

HORST W. J. RITTLL
Professor of the Science of Design, University of California, Berkeley

MELVIN M. WEBBER
Professor of City Planning, University of California, Berkeley

ABSTRACT

The search for solutions to social planning problems of social policy is bound to fail, because of the nature of these problems. They are "wicked" problems, whose nature has developed so that any "near" solution to the problem causes the solution to be discarded. Moreover, as a general rule, when a solution has been found, the problem has not been solved. The nature of the problem has changed so that the solution is no longer valid. The nature of the problem has changed so that the solution is no longer valid. The nature of the problem has changed so that the solution is no longer valid.

George Bernard Shaw diagnosed the case several times ago; in more recent times popular press may have already become a social movement. Shaw warned that "every profession is a conspiracy against the laity." The contemporary public are responding as though they have made the same discovery.

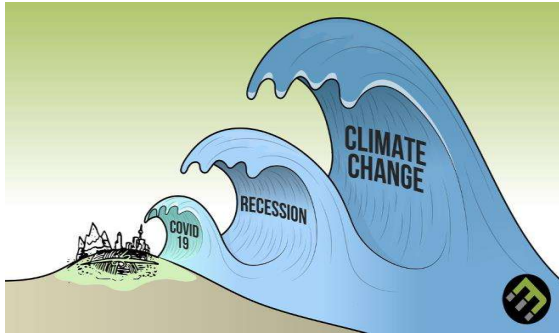
One of the modern professions seems to be immune from the popular attack—whether they be social workers, educators, lawyers, public health officials, politicians, city planners, highway engineers or physicians. The recent events have been telling us that they don't fit the educational programs that schoolmen have been offering, the independent services which several agencies have been providing, the law-enforcement roles of the police, the administrative behavior of the welfare agencies, the business of the highway, and so on. In the courts, the streets, and the political campaigns, we've been hearing ever-louder public protests against the professions' diagnosis of the client problems, against professionally designed governmental programs, against professionally certified standards for the public services.

If Shaw were still that this attack should be coming just when professionals in

¹This is a contribution of a paper presented at the Panel on Policy Science, American Association for the Advancement of Science, 1969, in December 1969.



Some classic “wicked problems”



Source: Idea for Sustainability. (2020). "Super Wicked Problems" – The Coronavirus Pandemic as an Analogy for Future Sustainability Challenges." (August 31)



Source: <https://pembinafall.com/article/flood-of-the-century-20-years-later>

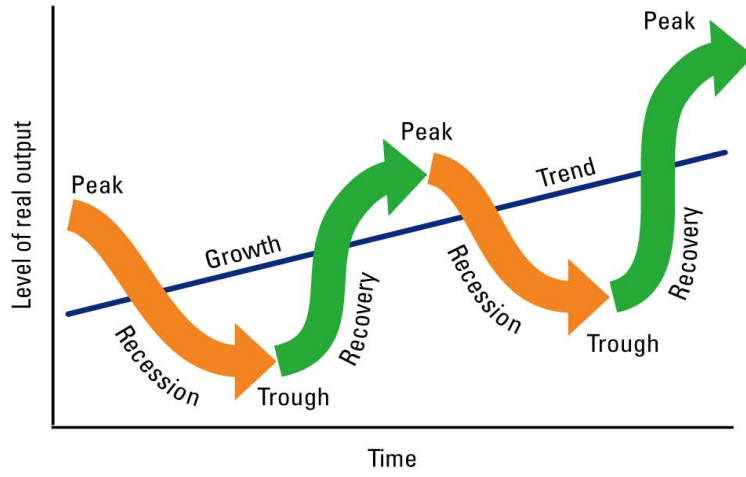




<http://www.independent.co.uk/news/world/americas/us-politics/donald-trump-angela-merkel-meeting-photos-avkwqr-r-white-house-visit-a7639051.html>

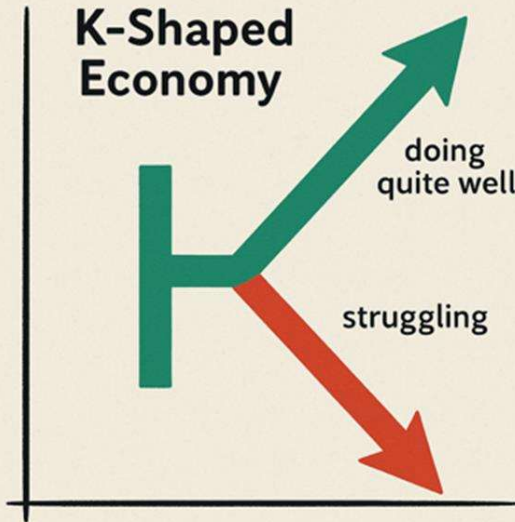


The Economic Cycle



Source: www.bigtrends.com

K-Shaped Economy



Source: <https://philipsandco.com/clarity/>

**A democracy can survive
disagreement.**

**The trick is surviving
when a growing number
of people feel they don't
even belong in the same
society at all.**







**Truth and
Reconciliation**
Commission of Canada





Source: <https://www.manitobaoperato.ca/county-crossroads/rural-red-ty-new-report-cites-ways-to-tackle-the-challenges/>





GETTING OUR HOUSES IN ORDER

How a lack of intergovernmental policy coordination undermines housing affordability in Canada



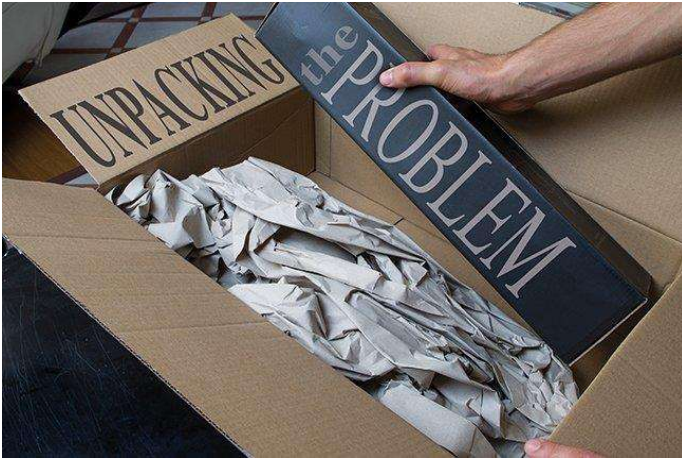
A new **MLI** commentary by Josef Filipowicz and Steve Lafleur



Source: <https://macdonaldlaurier.ca/getting-our-houses-in-order-how-a-lack-of-intergovernmental-policy-coordination-undermines-housing-affordability-in-canada/>





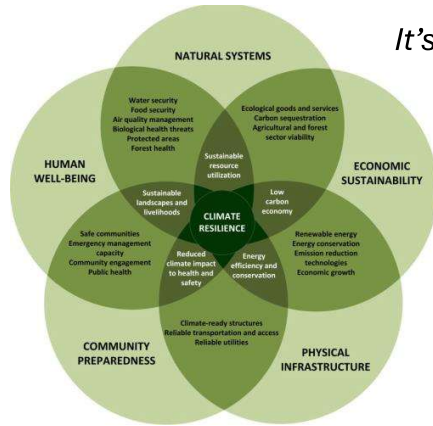


Source: <https://www.opi.net/magazines/archive/2019/march-2019/features-march-2019/unpacking-the-problem/>



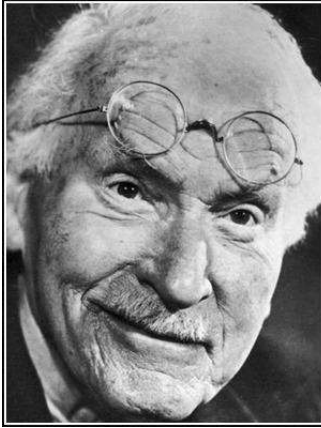
Source:
<https://www.psychologytoday.com/ca/blog/the-peter-dinkels-fires/202407/the-art-of-big-picture-thinking>

It's all connected...



Source: Government of Saskatchewan (2017), *Saskatchewan's Climate Resilience Measurement Framework*.





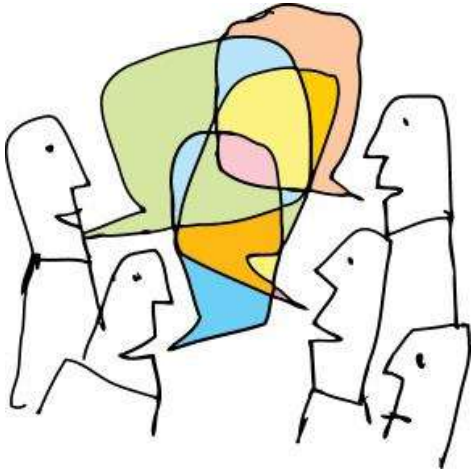
To ask the right question is already
half the solution of a problem.

— *Carl Jung* —

AZ QUOTES

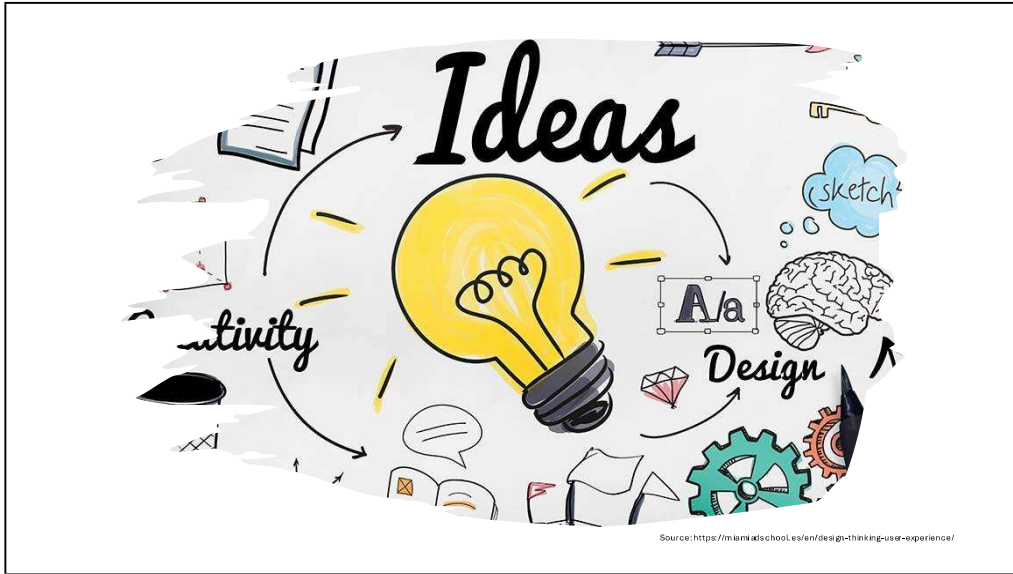
Source: <https://www.azquotes.com/quote/67979>

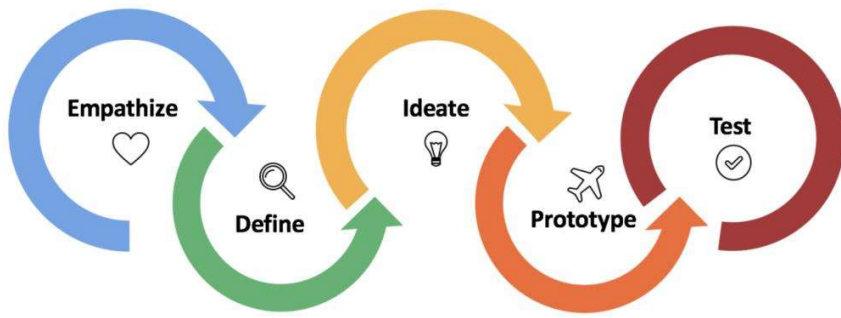
Seek multiple perspectives



Source: <https://artfulscribe.co.uk/blog/256/perspectives>



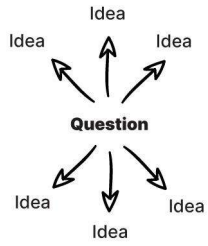




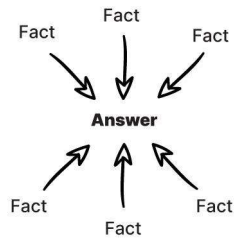
Design Thinking

Source: <https://ruralhandmade.com/blog/the-five-stages-of-design-thinking-a-comprehensive-overview>

Divergent Thinking



Convergent Thinking

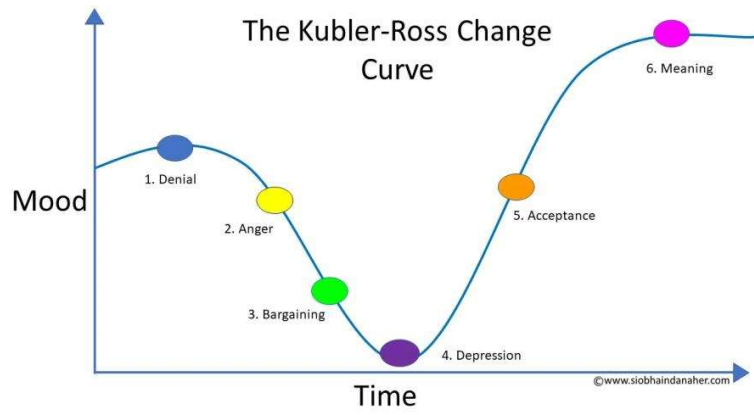


Source:
<http://www.justinspireshustle.com/blog/convergent-versus-divergent>

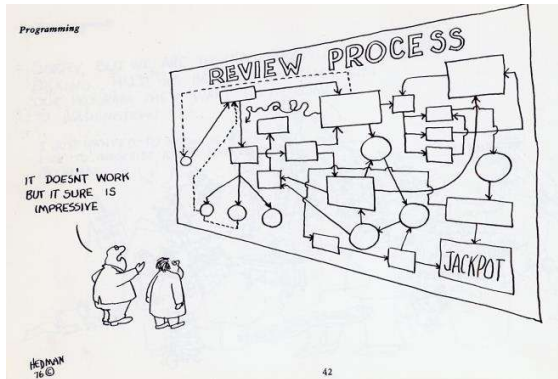
Some considerations...



Source: www.twistyourthinking.com

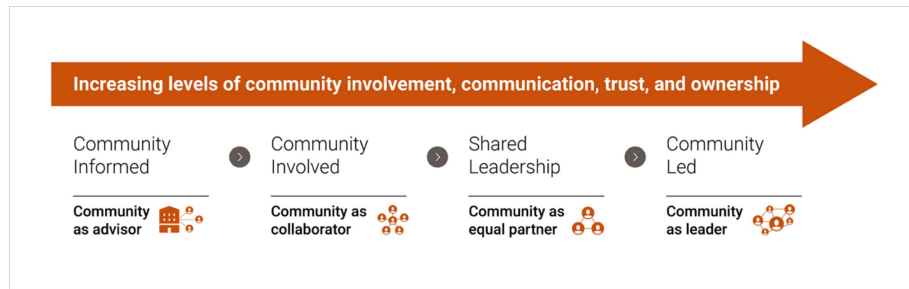


Source: Danaher, Siobhain. *The Change Curve. The Art of Positive Change.*

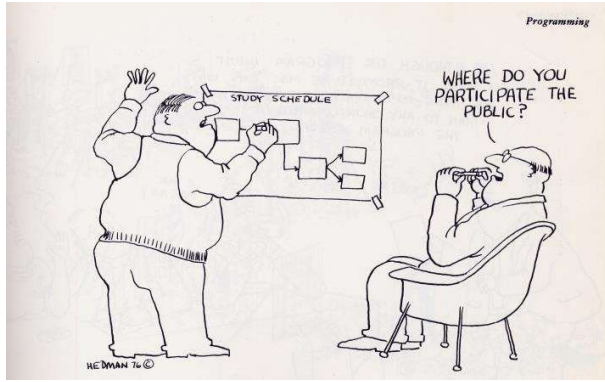


The temptation of complex systems models...too much of a good thing?

Be intentional with consultation

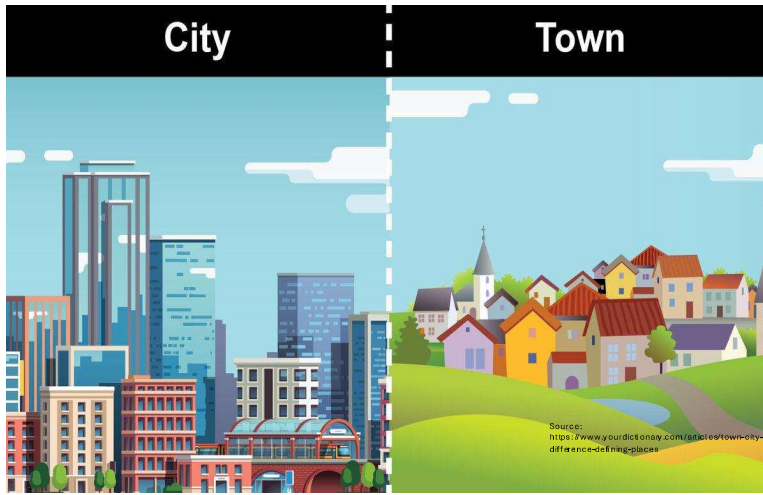


Source: <https://src.ssd.uchicago.edu/research-development/methods-tools/community-engaged-research>



Not cool.

Context *always* matters



About pragmatism and wicked problems...

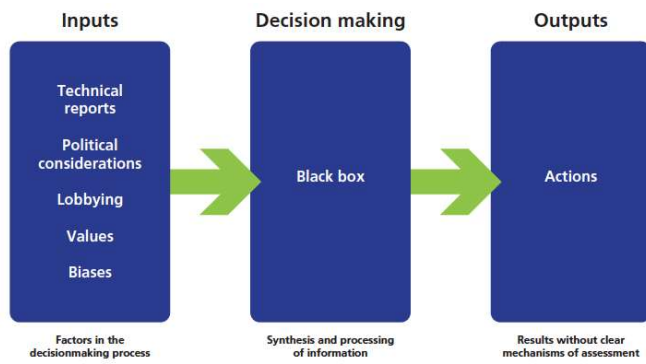
“We actively take on the world as it is,
not waiting for the world as we wish it to be”

Mark Carney

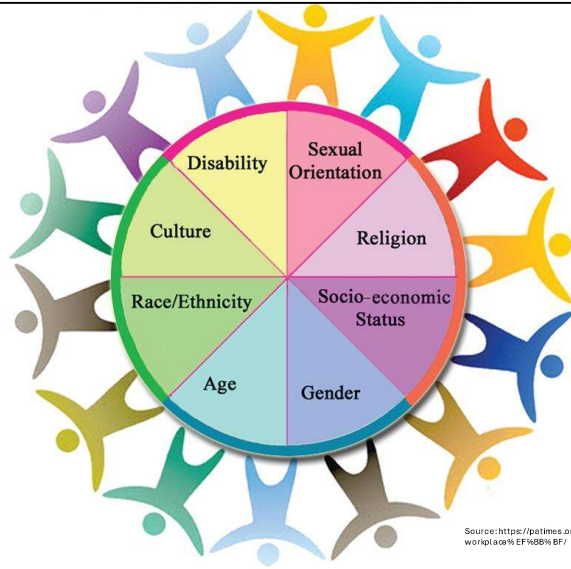
Bounded Rationality



Interaction Design Foundation
interaction-design.org



Navigating the Black Box decision-making model



Planning with/for diversity

Source: <https://patmes.org/cultural-diversity-in-the-community-and-the-workplace/> EF16884 EF7

Key takeaways

Lots of worrisome challenges! *We know that...*

Lots of *opportunities* to act + change

Great need for informed, evidence-based decisions + actions

Positive and constructive worldview essential

Planners can play key role in managing the *journey to the future*

Plan for these questions



What's going on out there?



Why? What are the causes?



Now what? What do we do about that? What can we do about that?



What if we do nothing?



Where do we start?

It's all hands on deck time!



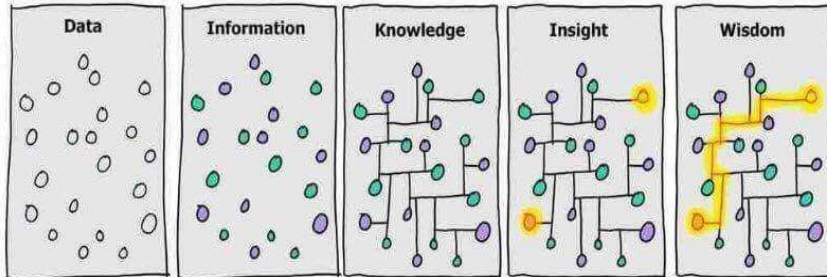
Source: SmartLiving 360, All Hands on Deck.

So...what is a “wicked” problem?

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Source: <https://www.chegg.com/homework-help/questions-and-answers/characteristic-wicked-problems-clear-straightforward-solution-predictable-linear-nature-co-q132550028>

It's a journey...let's get rolling!



Source: Source: Pratt, L. (2016). *Artificial intelligence and human limits*. (Blog: April 29)

Success takes patience,
hard work, imagination...and
a few breaks at the right
time!

Go Habs Go!!



A new day dawns. Thank you!



Source: <https://winnipeg.ctvnews.ca/2023/06/05/saving-prairie-grasslands/>