Mapping the Evolution of Sociotechnical Systems

A rant by @catswetel

12 November 2019

ticketmaster

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Our strategy is agile. We will lead an innovative effort of the market through our use of value and data leaders to build a blockchain. By being both collaborative and customer focused, our digital first approach will drive design thinking throughout the organization. Synergies between our learning organization and digital transformation will enable us to capture the upside by becoming networked in an open world. These transformations combined with culture due to our leaders will create a revolution through big data and social media.

https://strategy-madlibs.herokuapp.com/

“I’m excited to create my first map!”

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The map is not the thing.

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cat 6:59 AM

I hate doing like "Intro to Wardley Mapping" because who cares?

2 2



24 replies Last reply 3 months ago

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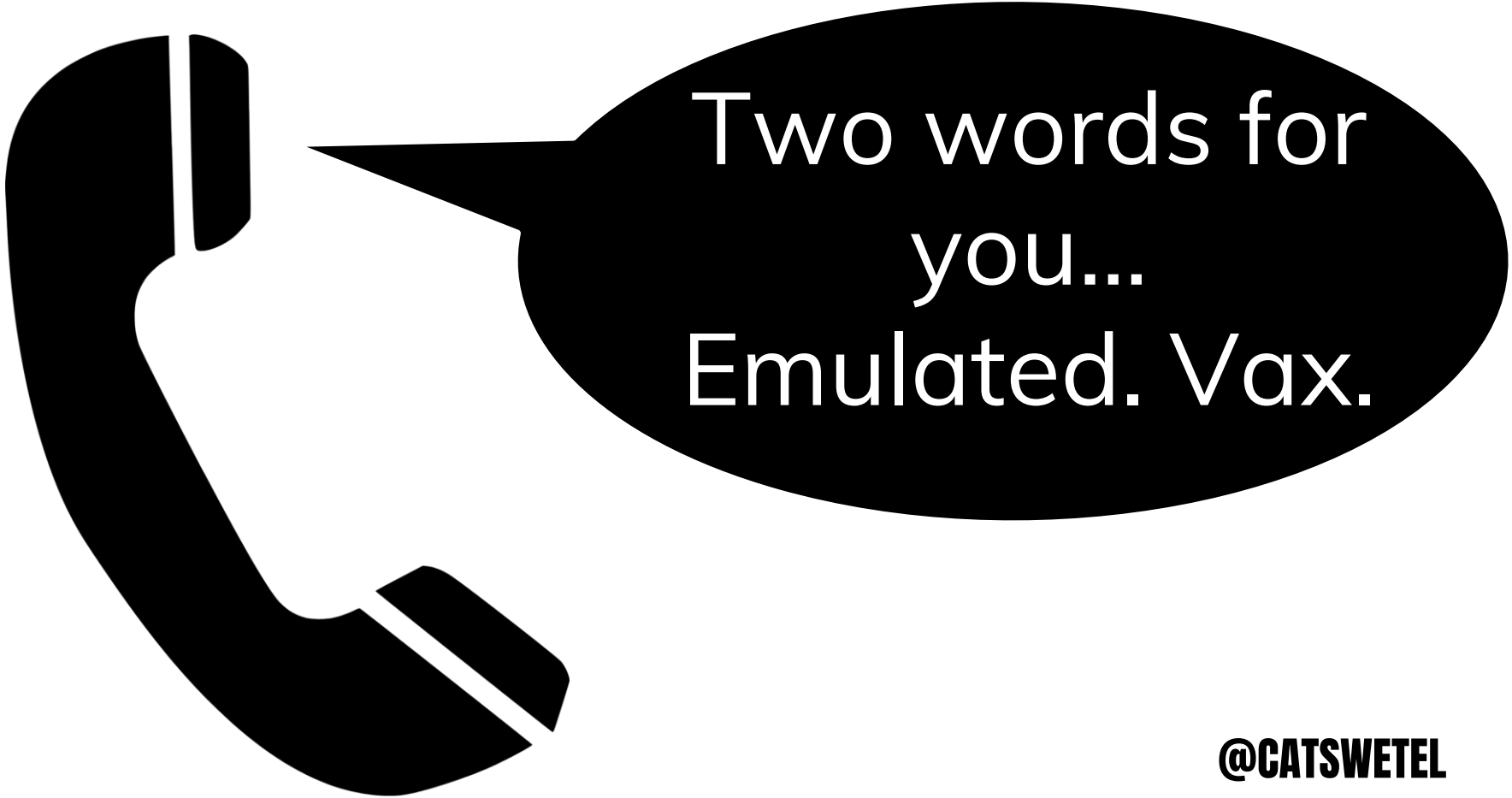

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Pioneers

Steals from → **Settlers**

Steals from → **Town Planners**

Uses Components From

Deals with ...

- Rare
- Poorly Understood
- Differential & Novel
- High Future value
- Constantly changing
- Undefined Market

Happy with ...

- Failure
- Gambling & Gut Feel
- Experimentation
- Uncertainty
- Ignoring Customers

Uses ...

- Agile
- Common components

Most likely to build a partially functioning 3D printer with Lego

Settlers

Deals with ...

- Growing
- Increasing Education
- Feature Differentiation
- High Profitability
- Maturing Products
- Growing Market

Happy with ...

- Constant Improvement
- Market Analysis
- Feedback
- Trend Spotting
- Listening to Customers

Uses ...

- Ecosystems

Most likely to steal a half baked Lego 3D printer and turns it into something that lots of people want to buy

Town Planners

Deals with ...

- Common
- Well Defined
- Essential Cost of Doing Business
- High Volume
- Standardised & Stable
- Mature Market

Happy with ...

- Opertional Efficiency
- Metric Driven
- Analytics
- Scientifc Modelling
- Building what is needed

Uses ...

- Six Sigma

Most likely to be running the factory which builds Lego bricks and Lego kits

Genesis — *Custom Built* — *Product (+ rental)* — *Commodity (+ utility)* — **Evolution**

medium.com/wardleymaps

@swardley


Fixed Disk 0
Write Protect
Halt
Run
Ready
Restart
DC OK
digital
MicroVAX
II
@CATSWETEL


VS
@CATSWETEL


VAX
MADE
SLOW
@CATSWETEL


Fixed Disk 0
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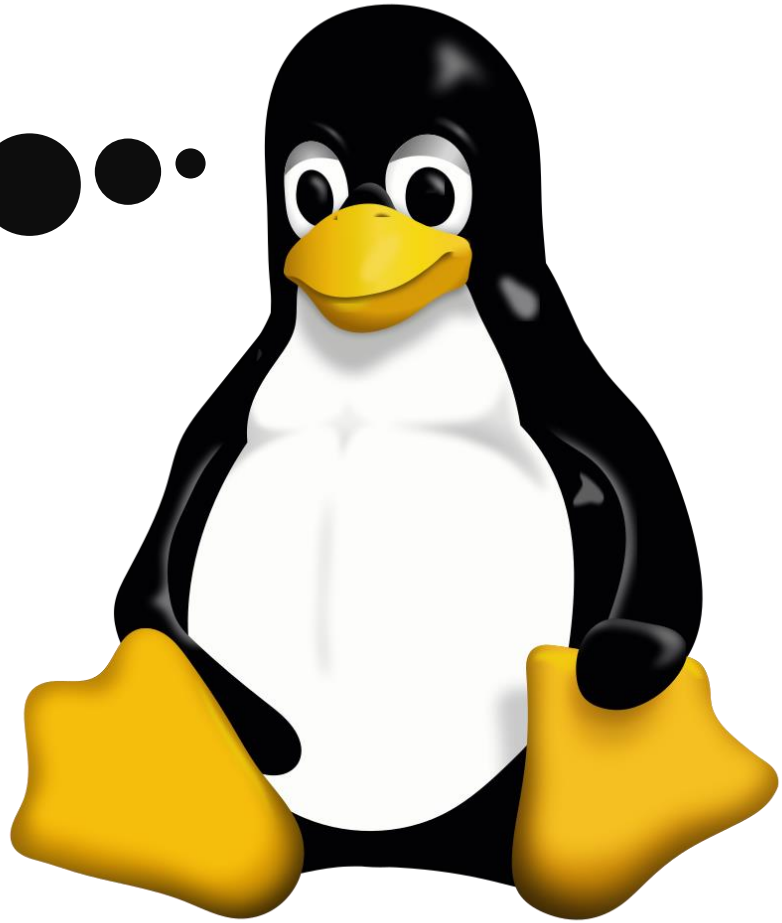

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Genesis Custom Product Commodity

EVOLUTION

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digital equipment corporation • maynard, massachusetts
pdp11/70
PAR ERR
ADRS ERR
RUN
PAUSE
MASTER
USER
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DATA
ADDRESSING 16 18 22
ADDRESS
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LOAD ADRS
EXAM
DEP
CONT
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S INST
S BUS CYCLE
START

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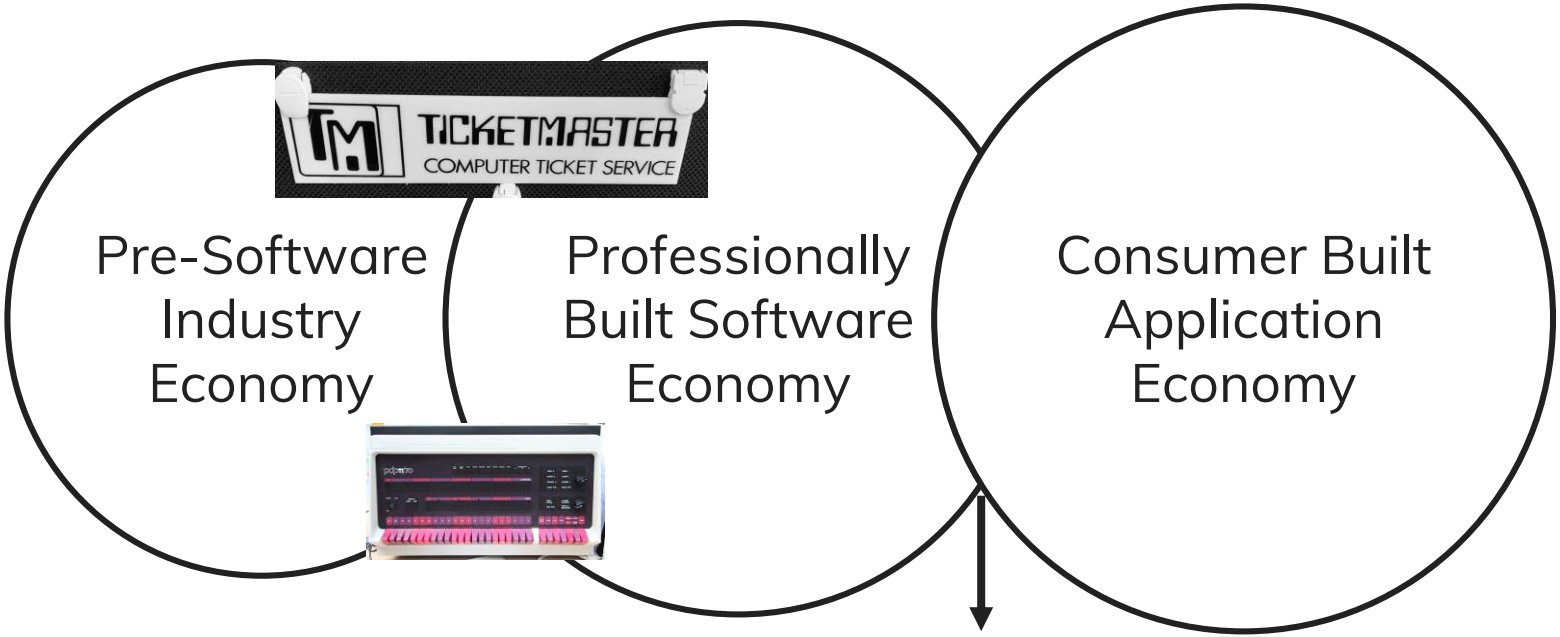

Collaboration Application Model

Developers build domain specific resources

Customers and users build code-free or code-light customized products

@conways_law

Genesis Custom Product Commodity

EVOLUTION

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How do you treat
a component?
How does the rest of the
industry treat the
same component?

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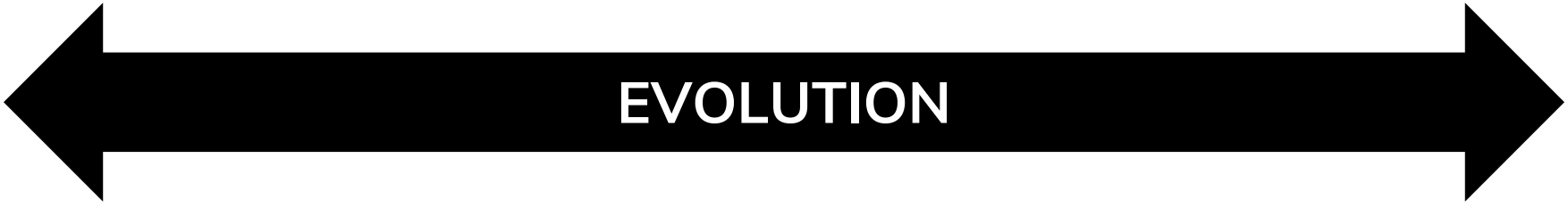
Stage (of Evolution)	I	II	III	IV
Activity	Genesis	Custom	Product (+rental)	Commodity (+utility)
Data	Unmodelled	Divergent	Convergent	Modelled
Practice	Novel	Emerging	Good	Best
Knowledge	Concept	Hypothesis	Theory	Universally Accepted
Characteristics				
Ubiquity	Rare	Slowly increasing	Rapidly increasing	Widespread in the applicable market / ecosystem
Certainty	Poorly understood / exploring the unknown	Rapid increases in learning / discovery becomes refining	Rapid increases in use / increasing fit for purpose	Commonly understood (in terms of use)
Publication Types	Describe the wonder of the thing / the discovery of some marvel / a new land / an unknown frontier	Focused on build / construct / awareness and learning / many models of explanation / no accepted forms / a wild west.	Maintenance / operations / installation / comparison between competing forms / feature analysis e.g. merits of one model over another	Focused on use / increasingly an accepted, almost invisible component
General Properties				
Market	Undefined market	Forming market / competing forms and different models of understanding	Growing market / consolidation to a few competing but more accepted forms.	Mature market / stabilised to an accepted form
Knowledge management	Uncertain	Learning on use / focused on testing prediction	Learning on operation / using prediction / verification	known / accepted
Market (Ecosystem) Perception	Chaotic (non linear) / Domain of the "crazy"	Domain of "experts"	Increasing expectation of use / Domain of "professionals"	Ordered (appearance of being linear) / trivial / formula to be applied
User perception	Different / confusing / exciting / surprising / dangerous	Leading edge / emerging / uncertainty over results	Increasingly common / disappointed if not used or available / feeling left behind	Standard / expected / feeling of shock if not used
Perception in Indusry	Future source of competitive advantage / unpredictable / unknown	Seen as a competitive advantage / a differential / looking for ROI and case examples	Advantage through implementation / features / this model is better than that	Cost of doing business / accepted / specific defined models
Focus of value	High future worth but immediate investment	Seeking ways to profit and a ROI / seeking confirmation of value	High profitability per unit / a valuable model / a feeling of understanding / focus on exploitation	High volume / reducing margin / important but invisible / an essential component of something more complex
Understanding	Poorly understood / unpredictable	Increasing understanding / development of measures	Increasing education / constant refinement of needs / measures	Believed to be well defined / stable / measurable
Comparison	Constantly changing / a differential / unstable	Learning from others / testing the water / some evidential support	Competing models / feature difference / evidential support	Essential / any advantage is operational / accepted norm
Failure	High / tolerated / assumed to be wrong	Moderate / unsurprising if wrong but disappointed	Not tolerated /assumed to be in the right direction / resistance to changing	Surprised by failure / focus on operational efficiency
Market action	Gambling / driven by gut	Exploring a "found" value	Market analysis / listening to customers	Metric driven / build what is needed
Efficiency	Reducing the cost of change (experimentation)	Reducing cost of waste (Learning)	Reducing cost of waste (Learning)	Reducing cost of deviation (Volume)
Decision Drivers	Heritage / culture	Analysis & synthesis	Analysis & synthesis	Previous experience

@swardley

Genesis Custom Product Commodity



CONSPICUOUS

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Minimum useful map?

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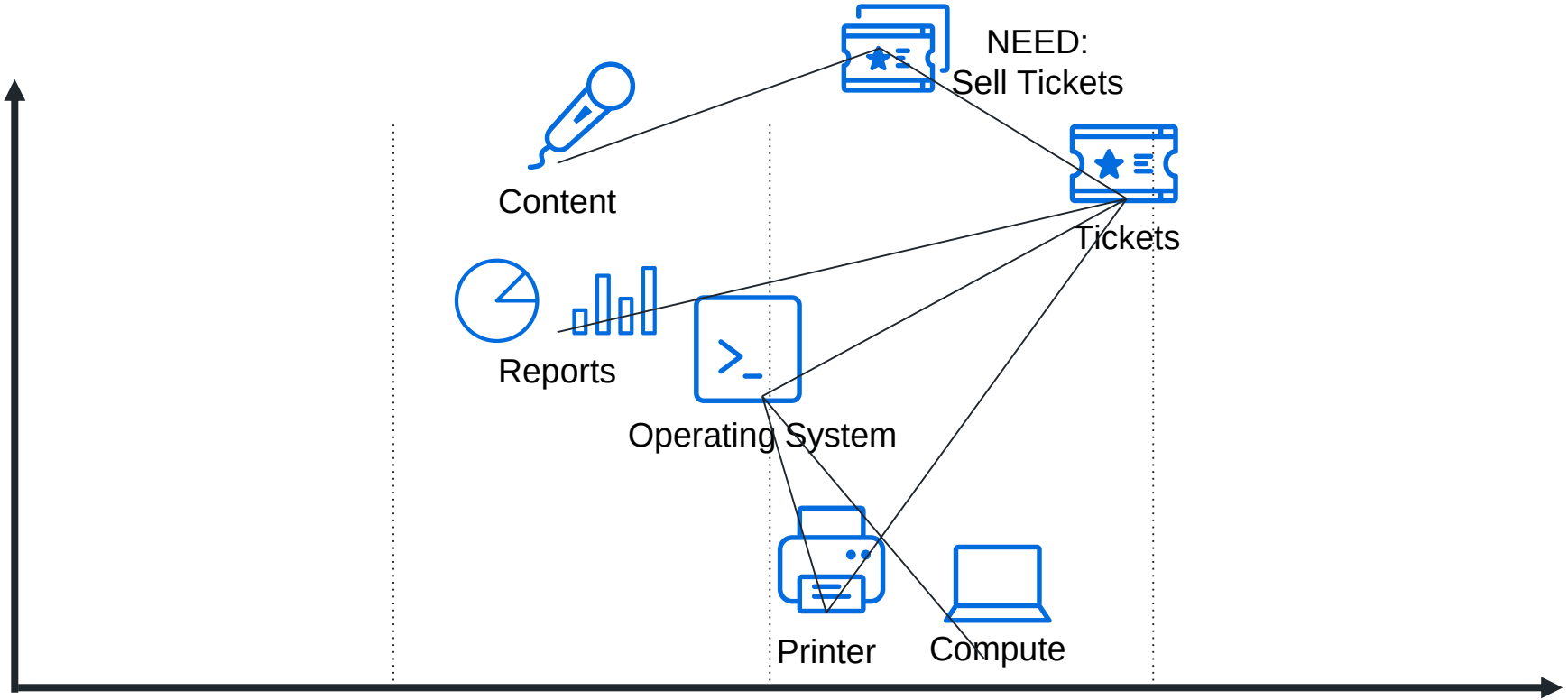
NEED:
Sell Tickets
Content
Tickets
Reports
Operating System
Printer
Compute
GENESIS
CUSTOM
PRODUCT
COMMODITY

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“The larger the variety of actions available to a system, the larger variety of the perturbations it is able to compensate.”

Ashby’s Law of Requisite Variety

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“[organisms] are finely balanced between metabolism and maintenance costs”

Scale
by Geoffrey West

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PAST EVENTS

2019

APRIL

Apr 9 - 10: Tokyo
Apr 9 - 10: Atlanta
Apr 10 - 11: Jakarta
Apr 10 - 11: São Paulo
Apr 16 - 17: Houston
Apr 23 - 24: Seattle
Apr 24 - 25: Baltimore
Apr 29 - 30: Denver

MAY

May 2 - 3: Austin
May 2 - 3: Des Moines
May 9 - 10: Nashville
May 11 - 12: Beijing
May 14 - 15: Zürich
May 14 - 15: Salt Lake City
May 17 - 18: Kyiv
May 20: Poznań
May 24 - 25: Porto Alegre
May 25 - 26: Bogotá
May 29 - 30: Toronto
May 30: Boise

APR 9 - 10, 2019

Tokyo

APR 9 - 10, 201

Atlanta

APR 16 - 17, 2019

Houston

APR 23 - 24, 20

Seattle

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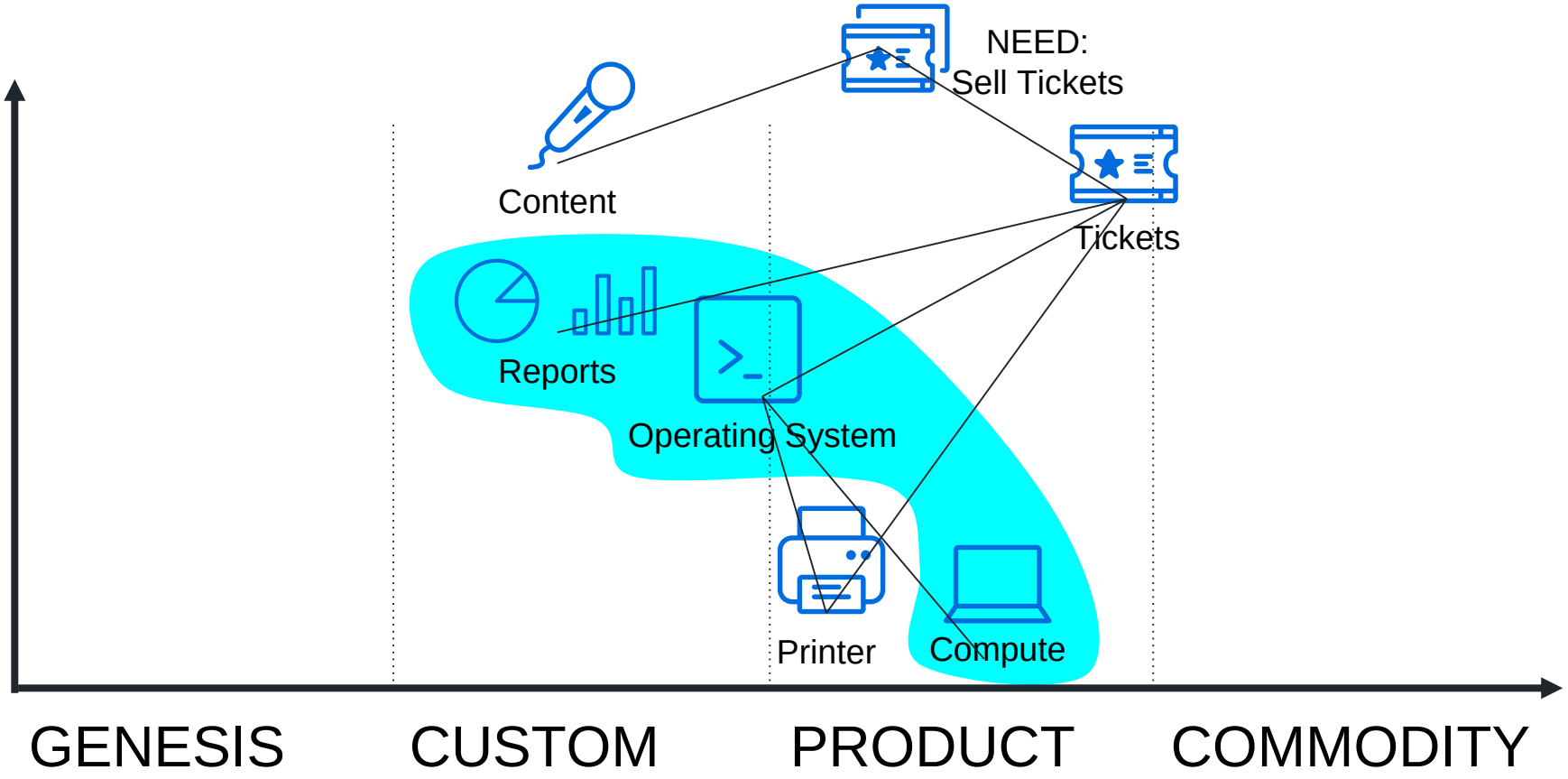
Ashby’s Law of Requisite Variety

From transactions to relationships


NEED:
Sell Tickets
Content
Tickets
Reports
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GENESIS
CUSTOM
PRODUCT
COMMODITY

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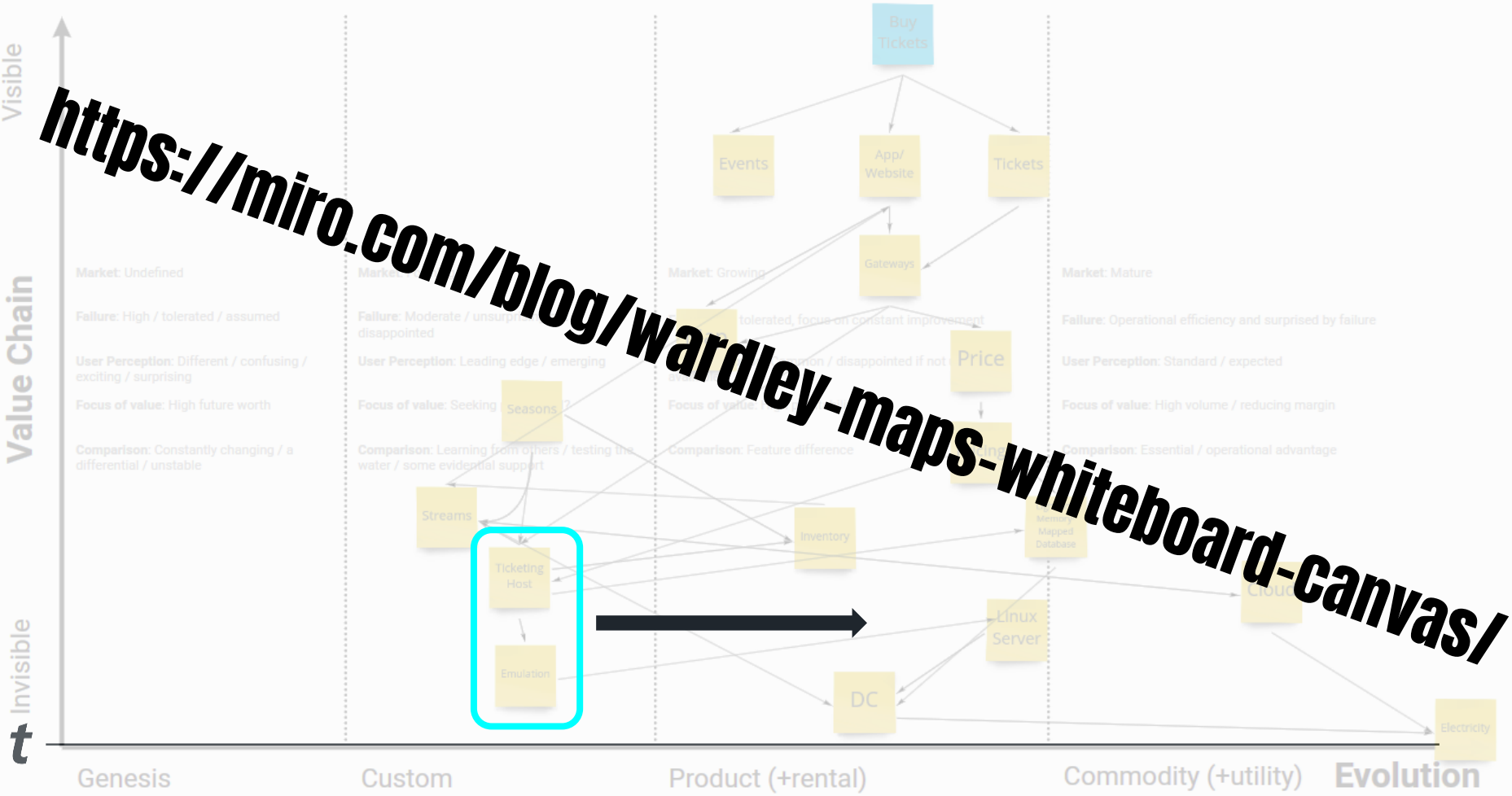
6. Map

Copy the value chain over. Use the evolutionary characteristics to decide where to place each component along the horizontal axis (Evolution).



https://miro.com/blog/wardley-maps-whiteboard-canvas/

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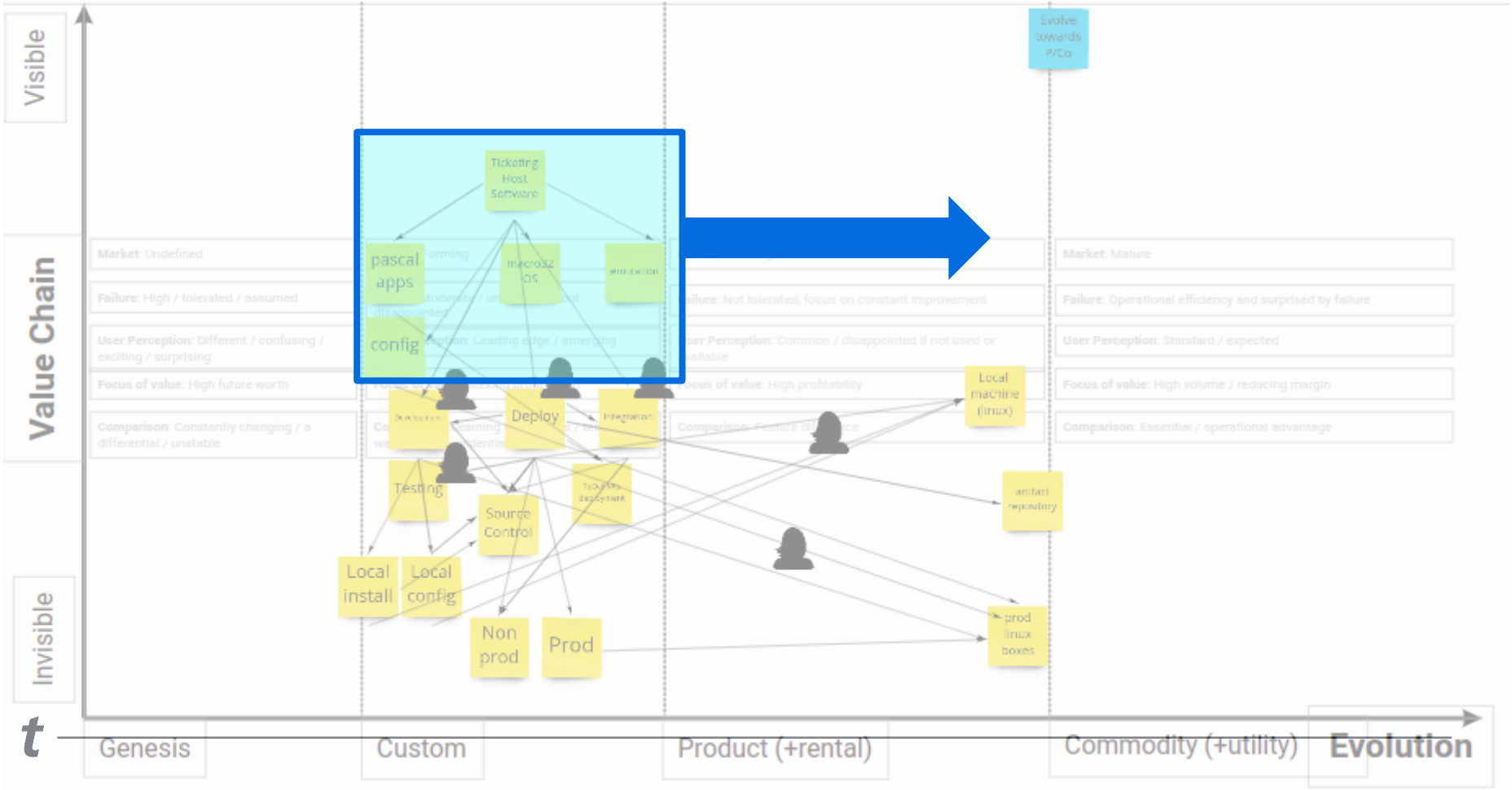

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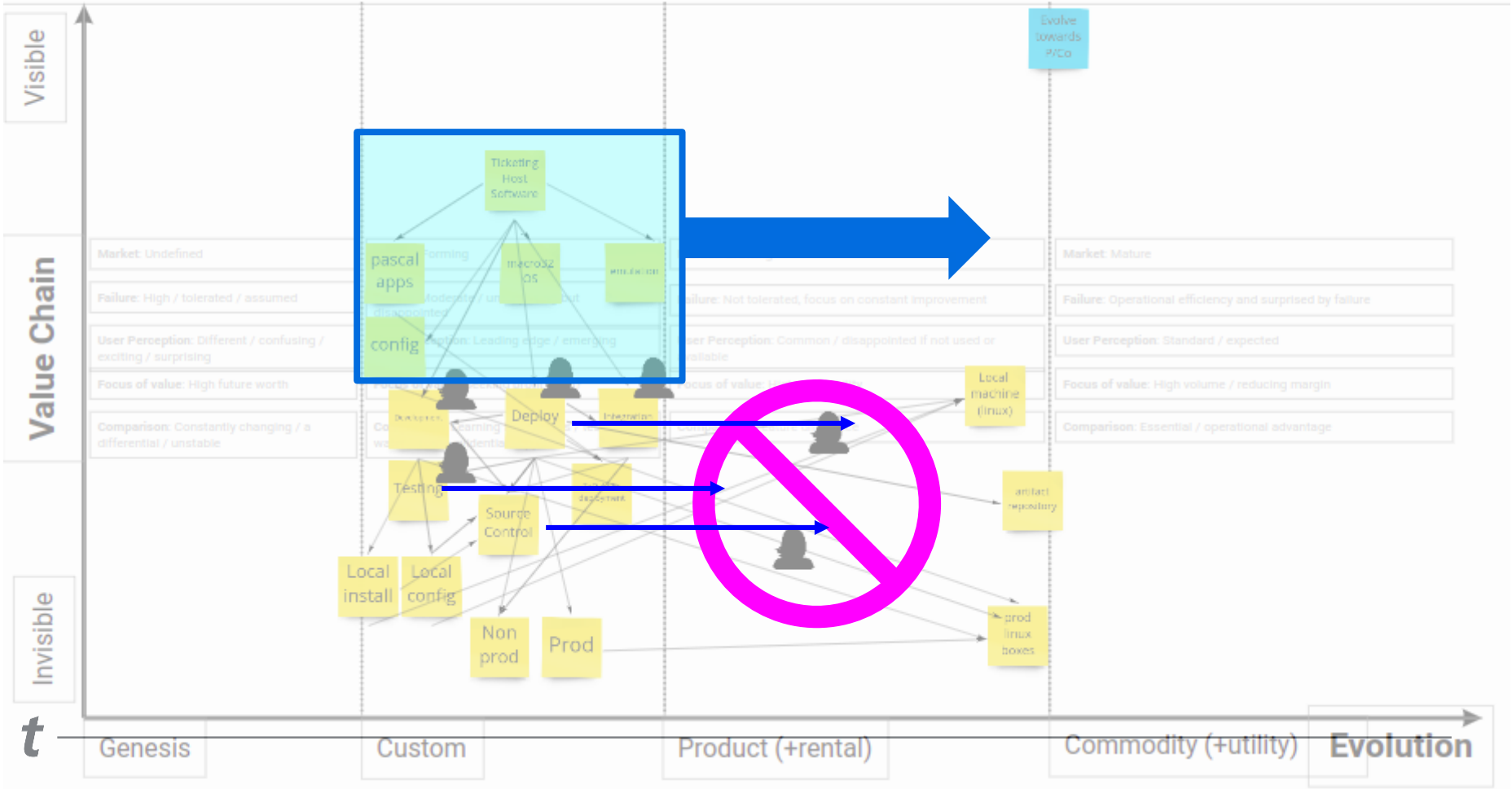

Devops is not (just)
a mindset.

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It has been fashionable as of late...to assume that **the actual job**, **its technology** and **its mechanical and physical requirements**, are relatively unimportant compared to the **social and psychological** situation of men at work.

Peter Drucker

The map is not the thing.

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Communication	Be transparent	Focus on high situational awareness *(understand what is being considered)*	Use a common language *(necessary for collaboration)*	Challenge assumptions *(speak up and question)*
Development	Know your users *(e.g. customers, shareholders, regulators, staff)*	Focus on user needs	Think fast, inexpensive, simple and tiny	Remove bias and duplication
	Use appropriate methods *(e.g. agile vs lean vs six sigma)*	Focus on the outcome not a contract *(e.g. worth based development)*	Be pragmatic *(it doesn't matter if the cat is black or white as long as it catches mice)*	Use standards where appropriate
	Use appropriate tools *(e.g. mapping, financial models)*			
Operation	Manage inertia *(e.g. existing practice, political capital, previous investment)*	Optimise flow *(remove bottlenecks)*	Think small *(as in know the details)*	Effectiveness over efficiency
	Do better with less *(continual improvement)*	Set exceptional standards *(great is just not good enough)*		
Structure	Provide purpose, mastery & autonomy	Think small *(as in teams)*	Distribute power and decision making	Think aptitude and attitude
	Design for constant evolution	There is no one culture *(e.g. pioneers, settlers and town planners)*	Seek the best	
Learning	Use a systematic mechanism of learning	Learn by playing the game *(a bias towards action)*	Be curious and take appropriate risks *(a bias towards the new)*	Listen to your ecosystems *(acts as future sensing engines)*
Leading	Be the owner *(take responsibility)*	Move fast *(an imperfect plan executed today is better than a perfect plan executed tomorrow)*	Think big *(inspire others, provide direction)*	Strategy is iterative not linear *(fast reactive cycles)*
	Strategy is complex *(there will be uncertainty)*	Commit to the direction, be adaptive along the path *(crossing the river by feeling the stones)*	There is no core *(everything is transient)*	Be humble *(listen, be selfless, have fortitude)*

First, respect for history

First, respect for history

Buy, when possible

Visibility is priority

Skills duplication > speed

Standardize, then automate

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“The larger the variety of actions available to a system, the larger variety of the perturbations it is able to compensate.”

Ashby’s Law of Requisite Variety

Value ***dis***fluency.

Thanks @TasshinFogleman AKA “Full Stack Monastic”

@CATSWETEL

Where we're going we don't need maps*!

*But we probably need mapping.

@TasshinFogleman AKA "Full Stack Monastic"

What happens to all the “legacy” code?

How do we innovate responsibly?

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Participation invitation

I have the resources to participate in this conversation.

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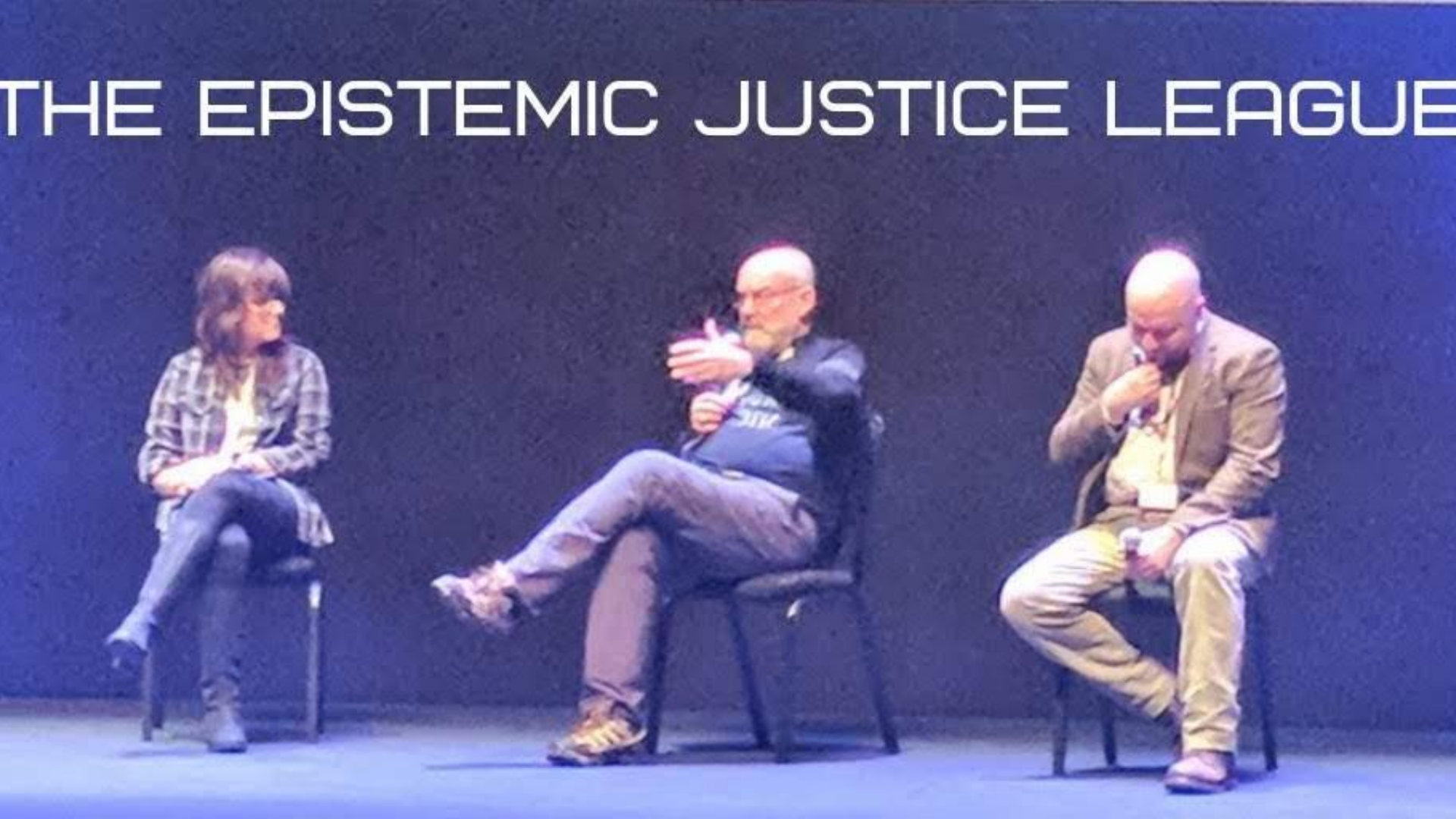
MP
Leading
Edge
Forum

THE EPISTEMIC JUSTICE LEAGUE



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