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[x] & law

Bryan Wilson

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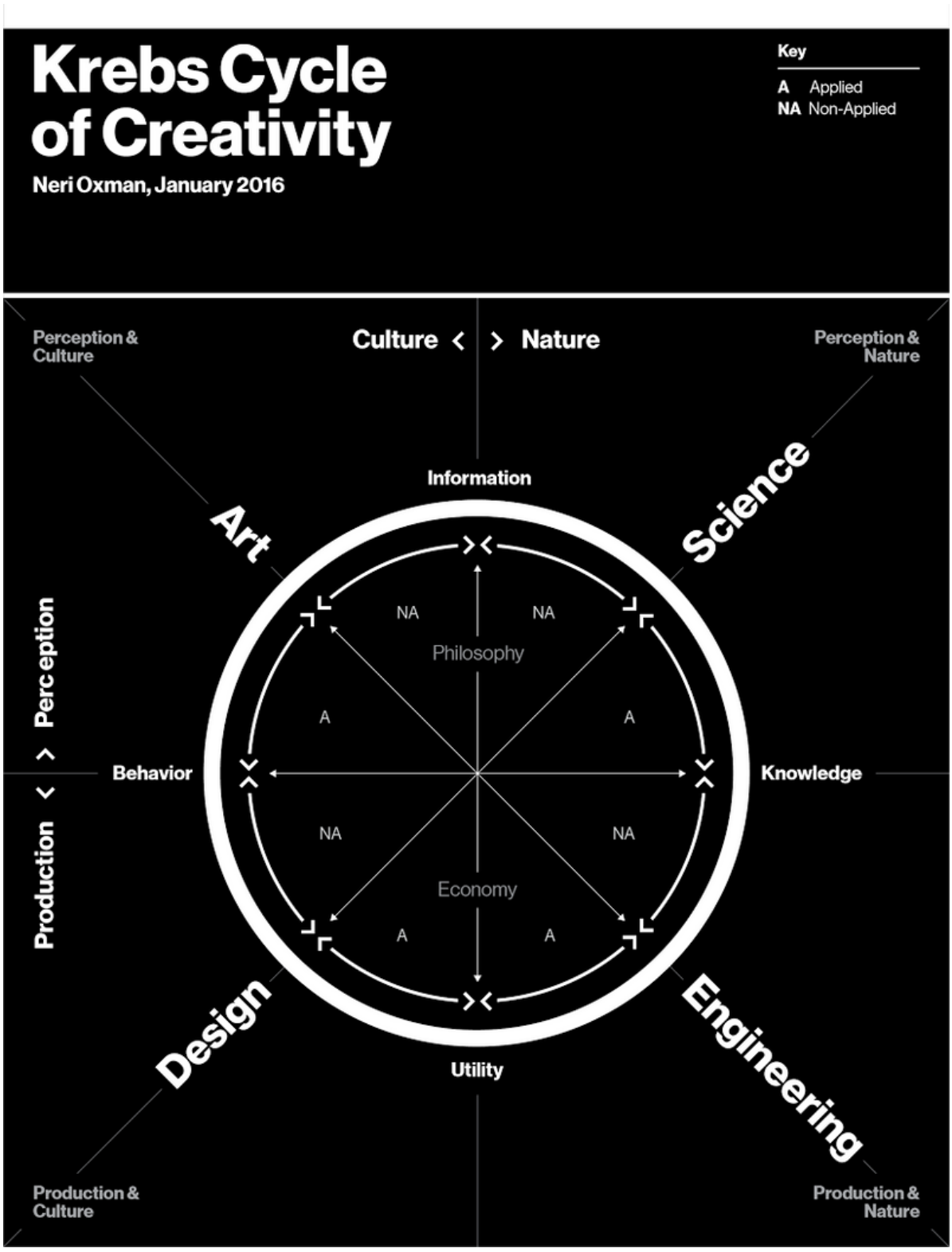
0.0 Introduction to *[x] & law*

Knowledge can no longer be ascribed to, or produced within, disciplinary boundaries—it is entirely entangled.[1] This is the primary assertion of the antidisciplinary. At MIT, the antidisciplinary concept is cultivated in a number of different ways. Research groups are made up of teams comprising different disciplines. New subjects are created and explored. And, perhaps most importantly, no idea is impossible.

This is why MIT is such a great home for the Computational Law Report. As technologies increase and disciplines traditional disciplines become ever more entangled, so too will the need to explore the liminality between law and the world around it. This antidisciplinary space between law and other disciplines is the primary focus of this column.

> *[x] & law* examines intersections between law and other disciplines: lessons that might be learned, insights that might be drawn, and inspiration that might be found.

As the title is examined further, additional interpretations of *[x] & law* may be derived. The iconography of the letter 'X' visually depicts two axes from which individual experience can be used to better understand the contour of some other construct—either as a bridge connecting different ideas with a central focus. This `X` might be found in the Krebs Cycle of Creativity,[2] the OODA Loop,[3] and all the way from the pedagogy of Bauhaus to Silicon Valley.[4] Taken from a different perspective, titled a little bit sideways, the X might also serve as a 2x2 grid used to better understand a new concept by evaluating its strengths and weaknesses.



The iconography also poses a challenge. At the center point of the letter X, there is confluence, understanding, and harmony. Then, from the center point, from the origin,

as the reader moves toward the edges, there is a universal divergence towards unchartered space. My personal hope is that this is also how the column will function for those reading it, writing it, and understanding it.

Thank you for joining me here, at the center point, for this first column.

1.0 Ecology & Law

Law is a technology to address changes in our communities. As such, law continually reinvents itself, not only to account for emergent domains of law that are facilitated by new technologies, but also to harness the capabilities enabled by new technologies to perform more tasks, more reliably, at lower cost.

The historical development of law, legal processes, and legal instruments is a history of using new technologies, mediums, and methods to balance the social contract (i.e., the evolving relationship between individuals, businesses, and government).[5] From the Code of Hammurabi and stone contracts to precious metal currencies, market monies, grain receipts and scrips, to fiat currencies, paper contracts, land registries, and paper rules, all the way to digital contracts, transaction scripts, cryptocurrencies, continuous organizations, and DAOs: each manifestation of law exists in some technological format (e.g., analog, digital, computational) and performs some sort of function (e.g., formulating a rule, providing notice of rules, executing a predefined rule, etc.).

Looking at the late 19th and early 20th century as an example of the way law reinvents itself, it is possible to learn more about how law in general reinvents itself because law played an important role during these times. The rise of mass manufacturing led to new environmental regulations, as well as new types of rights for workers, new antitrust regulations, and new legal entity structures. Further, the societal impact of mass manufacturing on the broader economy led to the creation of new rules around investments, and the subsequent crash of the economy in the 1930s led to the creation of new investment vehicles (e.g., the mortgage).

Against the backdrop of the Great Decoupling,[6] Surveillance Capitalism,[7] political polarization, climate change and biodiversity loss, it is at least possible, at a foundational level, that the prior period of industrialization might serve as a useful pattern for understanding what can be done to mitigate many of the entrenched problems facing society today.

2.0 Legal Frictions and Fictions

While it is easy to say what should be fixed, it is more difficult to say how these fixes might take place, especially as things continue to change and evolve. For example, in the last decade there was significant regulatory confusion about how to classify apps in the sharing economy, leading to somewhat silly outcomes. Many issues related to the city zoning codes had attorneys from different sides arguing whether an Airbnb was more like a house, a hotel, or a carriage house because of the associated zoning statuses. From a conceptual level, it is easy to say that Airbnb is a new concept and different from previous living arrangements like houses and hotels. The technological layer created by the app bakes in a different type of trust for today's consumers than that on offer to previous generations.

This friction between the theoretical function of law and the practical application of law (or the performativity of law) is one that the legal industry has not done a particularly adept job of navigating. This is partially down to the nature of law. Law is typically reactive and seeks to address a specific issue, whereas technology is usually disruptive and seeks to impact many different facets of our daily routines. However, there are other factors in play. Law is expensive and often complicated (sometimes unnecessarily so). Additionally, the way new lawyers are trained, the way that the profession of law is regulated, and the way that law interacts with adjacent disciplines create obstacles that limit law's availability and efficacy.

2.0 Law x Tech x Ecology

Many people looking at the field of computational law see it as both conceptually and practically distinct from the day-to-day practice of law. Yet, as the history of technological development within law demonstrates, when the economic value of moving to a new technology becomes more cost efficient than remaining with a legacy technology, the new technology will be adopted. A primary motivation for this *Ecology & Law* column is to demonstrate that computational law is actually part of a broader continuum of the living legal systems that surround us, in which legal innovations are adopted precisely at that moment in which they begin to perform ecological functions within law more efficiently and more effectively than their incumbent equivalents.

In their book, *The Social Organism*,[8] Oliver Luckett and Michael Casey make a connection between the proliferation of media in society and living systems.

> *"One of the first things anyone learns in biology class is that life has seven essential characteristics, a set of clear essential rules that distinguish living things*

> *from the inanimate counterparts in the material world. Here's a refresher:*
>
> **Cellular Structure**. *Living things are organized around cells. They can be simple, single-cell amoebas or occupy something as complex as the human body, home to trillions of different cells organized into specialized roles.*
>
> **Metabolism**. *Living things need nourishment, for which their metabolism converts chemicals (nutrients) and energy into cellular matter while producing decomposing organic matter as a byproduct. Put simply, living things need food and purge themselves of waste.*
>
> **Growth and complexity**. *In producing more cellular matter than organic waste, living things grow over time and become more complex.*
>
> **Homeostasis**. *Organisms regulate their internal environment, taking actions to keep it in a balanced, stable state.*
>
> **Responses to Stimuli**. *Living things respond to changes in their external environment, instituting alterations to their makeup or behavior to protect themselves.*
>
> **Reproduction**. *Living things produce offspring.*
>
> **Adaptation/Evolution**. *Living organisms adapt to lasting changes in their environment. And over the long term, by transferring survivor genes to their offspring, they evolve."*[9]

This is where it starts to get fun: in imagining how these ecological concepts might be extended into the domain of law. To begin building out a better understanding of *Ecology & Law*, I created a board on are.na (embedded below) where anyone can contribute links, .PDFs, videos, etc. on the subject.

Visit the web version of this article to view interactive content.

Note: scroll through the board, add to it, or make comments here in PubPub with additional Ecology & Law *references!*

Drawing from these sources and additional experiences, included below is a back-of-the-napkin overview that represents my best guess as to how law might connect to *The Social Organism*'s notion of ecology.

Cellular structure :: *new types of organizations, jurisdictions*

Metabolism :: *new accounting and incentives for different types of value*

Growth and complexity :: *new measurements for social phenomena*

Homeostasis :: *new abilities to maintain and execute commands*

Responses to Stimuli :: *new interventions for entrenched problems*

Reproduction :: *new opportunities for interoperability, access, and inclusion*

Adaptation/Evolution :: *new ways to work toward future goals*

If you have additional thoughts or feedback about how law builds on the above ecological framework, please include those by creating an account and commenting in PubPub or adding to the above are.na board.

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Footnotes

1. Oxman, N. (2016). Age of Entanglement. Journal of Design and Science. https://doi.org/10.21428/7e0583ad ↩
2. Oxman, N. (2016). Age of Entanglement. Journal of Design and Science. https://doi.org/10.21428/7e0583ad ↩
3. Dreier, A.S. (2012). *Strategy, Planning & Litigating to Win*. Boston, MA: Conatus Press. ISBN 9780615676951. ↩
4. Di Salvo, C. “Designs for Another Bauhaus.” *Bauhaus Futures.* (2019) ISBN: 9780262042918 ↩
5. Alex ‘Sandy’ Pentland (2020). 1. Building the New Economy: what we need and how to get there. In *Building the New Economy*. https://doi.org/10.21428/ba67f642.0499afe0 ↩
6. Erik Brynjolffson and Andrew McAffee, “The Great Decoupling” *New Perspectives Quarterly* (2013). DOI: https://doi.org/10.1111/npqu.11362 ↩

7. Shoshana Zuboff, *The Age of Surveillance Capitalism* (2019). ISBN 978-1-7881-6316-3 ↩

8. Oliver Luckett and Michael Casey, *The Social Organism* (2016). ISBN: 9780316359504 ↩

9. ↩