

JAGGED TRANSITIONS

Useful observations for contemplating the future. Prepared by OODA LLC for OODA Network Members. January 2023

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OODA Almanac 2023 – Jagged Transitions

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Introduction

This is the 3rd installment of our OODA Almanac series. The Almanac is intended to be a quirky forecasting of themes that the OODA Network think will be emergent each year. You can review our 2022 Almanac and 2021 Almanac at OODAloop.com, both have held up well.

The theme for last year was "exponential disruption", which was carried through into our annual OODAcon event. This year's theme is "jagged transitions" which is meant to invoke the challenges inherent in the adoption of disruptive technologies while still entrenched in low-entropy old systems and in the face of systemic global community threats and the risks of personal displacement.

We look forward to tracking these thematics over the coming year with the OODA Network. If you would like to support this research and interact with the top executives, experts, and luminaries on these issues, we would implore you to consider joining the OODA Network. Each month our network convenes to explore the landscape of risk and opportunity as well as deep-dive on current events impacting their organizations.

MATT DEVOST & BOB GOURLEY

Co-Founders, OODA LLC



Time Juxtaposition

It seems that 2023 will present an interesting time juxtaposition in that it will feel like we are living in yesterday and tomorrow simultaneously. While we are experiencing incredible developments in disruptive technologies like AI, we are also faced with a world in which historical conventional conflict still exists, including the potential for escalation into the use of nuclear weapons. This dichotomy of future/past existence stresses our ability to make informed decisions and increases the importance of scenario planning and

risk/opportunity modeling in both private and public sector organizations. We can't let our inability to escape the past impact our ability to advance towards a more optimistic future. OODA's work via our MOU with Ukraine has touched on this dual focus by identifying enabling technologies that help them win their conventional conflict and protect the lives of their citizens, while simultaneously contemplating how to use advanced technologies in future rebuilding efforts.

The Code Fra

We are entering into the Era of Code. Code that writes code and code that breaks code. Code that talks to us and code that talks for us. Code that predicts and code that decides. Code that rewrites us. Organizations and individuals that prioritize understanding how the Code Era impacts them will develop increasing advantage in the future.

If a tool like ChatGPT is available to all, the advantage goes to those who know how to derive the most value from the tool. Organizations and societies that look to utilize these tools rather than ban them will maximize this advantage. Instead of banning ChatGPT in schools, we should be teaching students how to use the capability to better advance their knowledge, ability to learn, and communicate ideas.

We will also rapidly enter into an age of regulatory arbitrage around the acceptable use of new technologies. For example, there are existing governors on how a tool like ChatGPT can be used that attempt to diminish its effectiveness as an offensive tool or in the creation of misinformation or other hostile political objectives. It is foolish to think that these constraints will be built into AI systems developed by adversaries and competitors. The same can be said for the boundaries around the coding of human DNA in developments like CRISPR. The boundaries of re-coding humans will continue to be pushed as the technology becomes more accessible globally.

What does the concept of Code Defense look like in such an environment? Are their deterrents and defenses we can put in place to prevent adversarial code from being impactful or effective? With the rapid pace of development and machine-speed OODA Loops, we will likely need innovative approaches to defend against code with code. What is a responsible pathway towards code autonomy?

The System is Broke

Within OODA, we use the phrase "The System is Broke" as shorthand for the disfunction and decline of government, private sector, and cultural systems. In 2022, it seemed like we invoked the phrase on an increasingly frequent basis to describe issues in U.S. healthcare, transportation, financial policy, high education, supply chain disruption, pandemic response, and governance.

Our collective tolerance for increasing broken systems allows little room for course correction over time and increases the probability for disorienting collapse or rapid system change. Systems that change due to intolerable decay create transitory pain, threaten the survival of macro systems, and create opportunities for adversary action.

Digital Agency and Decentralization

Initiatives around digital agency and decentralization started in recent years will be significant realities for 2023 and beyond. The developments around Roe v. Wade has broadened the realization that data can be utilized in unexpected ways in the pursuit of political agendas and that data stored and owned by 3rd parties is subject to law enforcement access.

As a result, we will see alternative approaches developed that keep personal data used by applications, both locally and in the cloud, encrypted and owned by the individual, not the application or developer. We are already seeing momentum here with Apple offering the option to encrypt iCloud back-ups and digital self-sovereignty initiatives attracting increasing levels of attention. In the future we will see the emergence of decentralized identity models and personalized data stores that grant permission to applications to compute data (e.g., health reporting) without giving the application persistent access to the data for law enforcement or other data subpoenas.

Interestingly, the pendulum swings at Twitter have also raised awareness around platform resilience and decentralization with alternative more decentralized structures that make use of federalization to increase cross-platform idea connectivity. While centralized platforms have appeal as single sources of online presence, users will seek to establish more control in platforms, some of which seem like reversions to older technologies like BBS systems and individual blogs. The risks of centralization are not insignificant and the Internet by default favors the decentralized, but decentralization increases friction, and a majority of users will stay on centralized platforms until that friction is reduced.

Financial agency will also be a focus of 2023 as we enter into a recession engineered by a centralized authority coupled with consumer and federal debt crunches facilitated by both the muscle memory spending of relief dollars and old low interest rates and consumer spending level still energized by the psychological relief of surviving a pandemic (e.g., recreational travel). While we've witnessed a Creative Destruction phase in blockchain, market forces around digital self-sovereignty and financial agency will keep moving forward with new innovation and solutions that offer new modes of financial agency.

Binary Fractures

Increasing momentum towards extremes continues to create a dynamic we are describing as Binary Fractures in which individuals and institutions are presented with choosing between different polarities instead of being able to align along a median. This disproportionate power of the extremes is alienating in political environments and unequitable in other domains. Binary fractures are also a symptom of broken systems.

Labor markets are biased towards increasingly expensive degrees creating little middle ground for alternative career pathways and devaluing much needed trade-work essential to infrastructure development and maintenance.

Political incentives are aligned around association with party extremes and result in political platform polarities. Decreasing tolerances for framework or policy dualities alienates centrists and over-complicates discourse as disparate issues get aggregated rather than competed on the intricacies of the individual issue.

Financial policies favor models in which we place barriers on access to wealth growth opportunities while locking unprecedented levels of debt into the system. For example, one OODA Network member expressed frustration that they can be successful in their career, take out a mortgage, finance a car, and have five credit cards in their wallet, but are legally restricted from investing money in a venture capital fund. These policies create a magnetic pull towards poverty while preventing access to investments that exude power law dynamics and the associated opportunities for disproportionate financial gains.

These binary fractures create policy and cultural whiplash which reinforce the perception that the systems are broke.

Crypto Creative Destruction

In 2022, the crypto and blockchain industry fully demonstrated frontier domain dynamics as it dealt with widespread fraud and wealth destruction. While it is important to sympathize with those financially impacted and pursue law enforcement and legal action to deal with the outright fraud, we remain convinced that this churn is effectively the period of Creative Destruction in blockchain.

While specific innovations like ICOs and NFTs will endure longer term recoveries, the core value proposition of blockchain and Web3 remains intact and we will continue to see innovation in the form of cryptocurrencies, blockchain technologies, and smart contracts. Many large organizations have robust blockchain initiatives and headlines reveal major players like SWIFT exploring blockchain models and institutions like Fidelity launching initiatives to custody digital assets.

A core differentiator in the success of these initiatives will be how organizations approach Web3 risk and making appropriate investments in cybersecurity to include red teaming, contract audits, and adaptive threat intelligence programs.





While cybersecurity has been a focus of corporate board rooms in the past, it is about to become a required focus as the SEC seeks to have companies identify a board of directors member as the cybersecurity lead. Although this only applies to publicly traded firms we have seen indications that it will influence the more savvy private firms as well.

At the same time potential personal liabilities for directors based on their action or in-action are increasing. This is making it more important than ever that boards educate themselves not only on SEC rules and compliance but on how to mitigate risks.

OODA has specific expertise supporting the nexus between technical cybersecurity and corporate governance risk management and look forward to supporting a wide range of companies by either placing a cybersecurity expert directly on the board or working as consultants to the board to help guide their strategic initiatives and ensure they are exercising due care in managing cyber risks.



Disruption of Social Integrity and Cognitive Infrastructure Resiliency

We continue to track several thematics around the disruption of social integrity in the U.S. to include stress points like homelessness, crime, and under-reported risks like Fentanyl deaths. Fentanyl is of particular interest given the increasing number of deaths and the drug having strong ties to foreign illicit chemical supply chains including origination from China.

Cognitive infrastructure degradation and associated misinformation and influence campaigns also continue to be issues we will closely monitor in 2023 and beyond. Rather than build models for cognitive resilience including investment in education platforms, current initiatives are focused on platform banning which create an environment of cat and mouse rather than addressing root causes.

Our world is becoming a house of mirrors as years of misinformation and disinformation and attacks on the credibility of institutions has eroded trust. Lines between fact and opinion are increasingly blurred in the media and sponsored content playbooks dominate what were previously technology-focused platforms. Distractions are prevalent and new platforms including the metaverse will encourage withdrawal from reality anytime and anywhere. Even our best approaches at conversational AI demonstrate inherent tendencies to manufacture facts and create faux authority to include manufactured citations. This will create unprecedented challenges and the development of new technologies and approaches.

Pandemic China

The coming year will also be greatly influenced by pandemic developments in China as it grapples with moving from one extreme system of pandemic management to another. A large number of cases will create issues with access to medical infrastructure sowing discontent with the populace already frustrated by the previous draconian zero-case approaches. An impact on China-based supply chains will augment recessionary pulls in global markets and Covid running rampant through a large unvaccinated population base runs the risk of triggering a mutation impacting global health and safety.



In our 2022 Almanac we highlighted that leaders would be entering into simultaneous crisis mode as they attempted to manage multiple international crises at once. We are fully within simultaneous crisis mode right now and expect that one of the manifestations of adversary exploitation will be in the cyber domain. With all eyes on traditional conflict in Ukraine and China's regional ambitions, a seam of cyber opportunity opens for established geopolitical and criminal actors.



A New Wave of Investment in National Security and American Competitiveness

At OODAcon in October 2022, we identified over \$15b being raised for new investment initiatives focused on national security and American competitiveness and we continue to cover those initiatives here on OODAloop.com.

This wave of speculative national security investment represents a new privatization of national security technology initiatives and will create a forcing function for the adoption of new disruptive technologies.

We also believe this will drive a rapid innovation pipeline for these companies at the seed and early-stage investment levels and OODA will continue to create opportunities for the OODA Network to engage on these emerging technology topics including at our January 2023 event on quantum computing.

Globalization Transformed

Globalization is transforming to regionalization due to strains from a global pandemic and emerging conceptions of national and economic security tied to geographic self-sufficiency. Globalization may suffer from the same binary fracture tendencies we discussed earlier which will create more frequent pockets of instability and increase economic, health, and food disparities. We will be tracking these developments closely.

We are not the first to recognize that North America is better poised to survive and thrive in a transformed globalization era. Abundant natural resources including oil, large fertile fields for agriculture, low-cost internal transportation (including the largest internal waterway system in the world), distance from hostile nations and a strong demographic profile all play in the favor of North America. The innovation ecosystem of the US is also second to none and bodes well for our future.

Watch for trends towards reshoring to continue, as well as friendshoring and new coalitions among regions with common goals.





Closing Thoughts – Dark Skies Require More Attention Than Gentle Seas

Each year as we compile this almanac, we overemphasize global risks which would seemingly position us as habitual pessimists. That is certainly not the case as we are enduring optimists with regards to the disruptive potential of the future and our ability to bend these innovations towards prosperity and peace.

Risks by their very nature require more deliberate planning. As a species our conception of tomorrow has differentiated us and acclimated us to build tools for future utility. A match stores the potential of a future fire, and a forecast of rain can be mitigated with the packing of an umbrella.

We believe our OODA Network should build and plan for future risks while also unlocking the opportunities of disruptive innovation. The two are more intertwined than most would acknowledge.



OODA helps our clients identify, manage, and respond to global risks and uncertainties while exploring emerging opportunities and developing robust and adaptive strategies for the future. We are a global strategic advisory firm with deep DNA in global security, technology, and intelligence issues.

Powered by the OODA Network

The OODA Network is comprised of the world's leading global experts, business executives, and strategic advisors focused on managing the next generation of disruptive innovation, emerging technologies, and global geo-political and cyber risk. Members participate in monthly meetings, strategic forecasting events, and in-person networking events in Washington DC, San Francisco, Las Vegas, and New York City.

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