

Black Swans: Disruption of Power

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ABSTRACT

Against a backdrop of disruptive change, it is tempting to try to categorize and spot patterns early: we have seen a recasting of politics, the upset of established systems, the emergence of new media, challenges to traditional models of learning and an evolution in the nature of knowledge itself. The relentless march of technology masks part of the true nature of this change; while technology is a very visible manifestation of change, it is the underlying sociology, the cohesion of communities, and the evolving forms of power behind them, which really count. In this social age, we are seeing a fundamental evolution in types of power that will disrupt much of the previous power dynamics. This paper builds on previous work that centered on how to re-contextualize scripts and frames to educate organizations to better deal with Black Swans (Stodd, Reitz, Schatz, & Fautua, 2016).

Black Swans are disruptive events, unpredictable and disruptive of formal systems. If the nature of Black Swan events is known, then the ecosystem within which they occur is of key interest; as the ecosystem changes, so too does the nature of disruption, the speed with which it occurs, the groups that cause it, and the inability of formal systems to predict or cope with the results. This paper will contextualize these disruptions in terms of types of power, formal and social systems, and the impacts of these effects on learning and leadership today. We propose a learning concept that focuses on increasing strength through highly engaged, high trust, and reputation led, social communities. Additionally, we will provide case studies of military and non-military organizations that have applied similar concepts: they maintain a dynamic tension between formal and social systems which allows them to learn fast, evolve rapidly, and become highly resilient to future black swans.

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INTRODUCTION

One moment, the world is sailing along as expected, and the next, everything changes, seemingly hinged on a single moment that was unforeseeable based on previous experience and knowledge. Against a backdrop of disruptive change, it is tempting to try to categorize and spot patterns early: we have seen a recasting of politics, the upset of established systems, the emergence of new media, challenges to traditional models of learning and an evolution in the nature of knowledge itself (Hidalgo, 2015). This knowledge isn't new— it has been discussed countless times by countless authors, and there is no indication that the trend of identifying this constant evolution will cease (for recent notable examples, see Taleb, 2007, Jamieson, 1996, and Beyerchen, 1992). What remains remarkable is the persistence of a belief that everything will be fine if we adhere to the tried and trusted coping strategies regardless of their relevance to the black swan event, or that existing mechanisms of resilience will suffice, when all around us we see fracture and failure.

Disruptions to the power structure – military, economic, or governmental – are often solved in the aftermath of events by careful application of hindsight bias (Hertwig, Fanselow, & Hoffrage, 2003). The events of 1914 are eminently predictable when one remembers that Otto von Bismarck himself had predicted almost thirty years earlier that the next great war would be caused by “some damned foolish thing in the Balkans” (Tuchman, 1962). With perfect knowledge, every low predictability and large impact event that has occurred can be mapped out and casual factors identified. But nothing is so simple, and not every Black Swan that disrupts power is a 9/11 or a World War. It can be a single firefight for a military unit, a misread blip on the radar, or an organically developed change to a use of technology or any form of the old adage ‘for the want of a nail, the battle was lost’.

A premise of this paper is that we understand that change can be unknown and disruptive, but that our mechanisms of organization, strength, and formalized learning, may be very much part of our fragility that occurs in response to the type of change that is unforeseeable: we engineer great 'known' strength into our organizations to deal with predictable change, at a time when a diversified strength, existing as a dynamic tension between formal and social systems, may be what we need (Noveck, 2015). The relentless march of technology masks part of the true nature of this change (Keen, 2015); while technology is one of the most visible manifestations of change, it is the underlying sociology, the cohesion of communities, and the evolving forms of power behind them, which really count. In this social age, we are seeing a fundamental evolution in types of power which will disrupt much of the previous power dynamics (Stodd, 2016).

This paper builds on previous work that centered on how to re-contextualize scripts and frames to educate organizations to better deal with disruptions from Black Swans (Stodd, Reitz, I/ITSEC 2016). We propose a learning concept that focuses on increasing strength through highly engaged, high trust, and reputation led, social communities. Additionally, we will provide examples of military and non-military organizations that have applied similar concepts: they maintain a dynamic tension between formal and social systems which is allowed them to learn fast, evolve rapidly, and become highly resilient.

HOW FORMAL SYSTEMS FAIL

Failure occurs when a formal system is too rigid to deal with the shockwaves of a disruptive change. With the social vehicles of communication that have developed in the recent past that form such a crucial part of the Social Age, the impetus that even a minor variable can gain cannot be underestimated. Historical inherent limits to communication that existed in the past cannot be relied upon to act as natural stoppage points, or any other controlling factors.

The Social Age is a broad term to encompass the world we live in today: it is characterized by effects of collectivization within communities, both formal and visible, social and hidden, and by the democratization of much that was

previously the exclusive domain of those with power and control of infrastructure (Mikkelsen, & Martin, 2016; Azua, 2009).

Types of Power

Understanding different modes of power is not about enabling formal systems to exert absolute control over social ones, indeed, as we have noted, that is simply not possible. More, it is about understanding how systems can coexist, and how we can exert influence within both (Grant, 2014). The Social Age has changed everything: broadly speaking, it has eroded formal authority in favor of socially moderated, divergent and contextual Social Authority (Stodd, 2014). This has eroded the purpose of organizations, as distributed social mechanisms of production have empowered individuals and small groups, while making large organizations less able to react to the ever-changing nature of the world today.

Formal Power

Hierarchical power, that which is codified within formal hierarchies, based in rules, empowered by systems, and suffused with process, may be fairly resilient: this is the type of authority we see in most organizations, and in military contexts, where the hierarchy can be carefully drawn and mapped out, and people placed within the system. This type of authority may be highly resilient to known forms of disruption, if we allow time for induction into the system.

Informal Power

Individual power is likely to be social, based upon reputation, or formal, based upon position within a hierarchy. For example, a political figure may hold individual power and influence through their position, while an author may hold power and influence through a social authority that they have been granted as a result of what they have written. While one is a social form of power, and the other formal, we can consider how they are rooted in the individual, and may be disrupted as a result, or how the individual can disrupt power structures themselves. There has been a growing groundswell of the individual discovering their own agency through the new information networks. In response to emergencies and disasters, it is now a common situation for individuals to take very direct action and stances that cause rapid evolution of fast moving short lived groups with a narrow focus that out paces larger, formal organizations.

However, socially moderated individual power may be entirely disrupted if the individual is incapacitated. Formally moderated individual power, where the individual resides within a hierarchy, may be reasonably resilient, as the individual could be replaced, although there will inevitably be delays as even within formal power there are personal networks and knowledge required to be truly effective, and these take time to learn.

Struggle between Informal and Formal Power

Countering individual Social Authority may be reasonably easy, unless the Social Authority is also a networked type of authority based upon ideas. This is where things can get complicated. Take some recent examples, such as those of Julian Assange or Edward Snowden. Both have individual Social Authority granted to them by the community, while lacking or being in active opposition to formal authority. But both also have a form of networked power through their ideas: a global community united around shared interests, purpose, and intent. The reaction of the formal system to the stories that these individuals have told, is to attempt to remove them from a position of authority, but in both these cases, the social power has been amplified, and indeed attempts to control their personal authority and freedom may have resulted in a strengthening of their networked power and authority (Brafman, & Beckstrom, 2006).

Empowerment through 'networked power' is an emergent feature of the Social Age; hence the almost complete inability of formal systems to recognize it, let alone understand how to counter it. We can remove nodes within the network, but those nodes are typically connected through many and diverse bonds, be they tribal, social, formal, or simply needs-based bonds (Wasserman, & Faust, 1994). Removing one node may be counterproductive, especially in a network of ideas and ideals: it may simply cause power to emerge in other parts of the network in an even more unpredictable manner. It may even enhance the effects of the network: networked power may thrive on disruption and be amplified by attempts to control it. Again, this is an emergent feature in the Social Age, and one that bemuses formal authority that is used to controlling both the channel of communication, and the permission of individuals to communicate: today, the technology of communication is democratized and resilient, and the permission of the individual is remarkably hard to constrain. Attempts at restriction and censorship paradoxically act as a catalyst for explosive dissemination, having completely opposite effect than that which was required (Breshnahan, 2013).

In most organizations, and in most contexts, the true picture is a combination of all these types of power: even within a formal system, there was individual authority, and that individual authority gives the formal system some kind of networked resilience. Truly networked and social forms of power, by contrast, cannot be controlled or subverted by formal authority, nor can they be disrupted through direct, kinetic, political, or other formal power-based action.

There are situations in which we need to counter this networked Social Authority, the most obvious being the extremist threats faced by the world today. There are other, possibly less serious, contexts in which we need to understand how Social and networked authority can be curbed: for example, when we need to find consensus in peacekeeping roles, or negotiating settlements, we need to fully understand the types of power at play, and how we can align to them more closely. This may not be about trying to silence social and networked voices, but trying to find consensus and agreement, in service of pragmatic ways forward – steering rather than stopping.

In our paper on ‘Black Swans and the limits of hierarchy’ (Stodd, Reitz, Schatz, & Fautua, 2016), we outlined how formal systems can be subverted by scripts and frames to hold them. Put simply, frames create the stage, and scripts describe the expected behavior patterns; scripts provide cognitive efficiency by defining cognitive pathways for both the “viewers” and “actors” (Tannen, 1993; Minsky, 1975; Shank, 1975). The proposed response to this was to build strong, sense making capability, a parallel system, so that we could hold open a space for ambiguity, alongside our ability to take strong, kinetic action.

With an understanding of the relationship between different ‘types of power’, we have another piece of the jigsaw: in the formal, kinetic space, individual and hierarchical power predominate, whilst in the social space, it’s the networked power of Social Authority.

Our core premise is that, in a Socially Dynamic Organization, both formal and social leadership will be recognized, and that, by doing so, we will develop a stronger capability to identify, question, and challenge, subversive scripts, and manifest a stronger ability to recognize true Black Swans and their potential outcomes from mere shadows.

IMPACTS OF TYPES OF POWER IN LEARNING

Resilience is a term used to describe the strength of a system and its ability to deal with disruptive change. Resilience, which historically sat in infrastructure, systems, processes, formal hierarchies, command and control, kinetic action, and formal knowledge, today sits substantially in other areas. While formal systems may cope with formal disruption, it is likely to be social systems that can counter disruptive and networked forms of power. The formal systems cannot hold sway in social spaces, but the social system cannot replace aspects of the formal one. Systems of radical formal strength can be brittle: superbly architected to cope with known disruptions, significantly susceptible to asymmetric or unknown disruption. The nature of their vulnerability is unknown within the current frame, and hence the strength we continue to build within the current mindset may simply amplify our susceptibility (Johnsen, 2010).

When the nature of the disruption we feel is experienced through a hierarchical, story based types of power, within the formal system we have very few options to counter it, except through ever greater formal strength. Take the recent bombing of a concert in Manchester, UK. The bomber was able to trigger limited damage, but with very high social consequence, by killing children in an entertainment venue. The only response of the formal system is to provide more security apparatus, more manpower, more visible guns, and greater formal strength. The cost disparity alone is vast, but that’s not the issue. The type of power deployed is fundamentally different: it’s cheap, low scale, individual, but with effects that are expensive, large scale, and networked.

If we understand formal systems well, a lack of knowledge about social systems is also obvious: as described, formal systems are those which are visible, owned, and controlled, systems which are fully within our ability to change through formal means. Social systems, by contrast, are networks of trust and reputation, relationship and ideology. They are communities of ideas and brand or in the case of a catastrophic event, emotion. They are neither respectful of formal boundaries, nor constrained by them. Formal systems are visible and controllable: social systems are often invisible and fluid yet also capable of affecting practical change. In the same incident mentioned above, there was an immediate example of this emergent networking as a seemingly spontaneous social media ‘open door’ movement provided places for those affected to stay, in a reaction that outpaced anything that could be organized officially.

There is a dynamic tension that sits between these two systems, and the aim of this work is to understand the nature of this dynamic tension: not with a view to destroying it, but rather in maintaining and gaining benefit from it. It is a tension of power and control: the formal hierarchy is the codification of formal power, but as we have seen with effects of strategic compression, the formal hierarchy may have its limits, and never more so when dealing with disruptive Black Swan type events. The social system is not unaccountable, but is rather accountable to itself through forces of reputation and trust.

All systems are governed by the types of power at play, the formal, the social, and the interplay between the two. This impacts on leadership and learning, performance and resilience. Against the background of the Social Age, with its connective and democratized effects, no one type of power will be enough, and indeed, neglecting our understanding or utilization of different types of power may cause our failure.

There is a difference between an aberration within a system, and the disruption of the system itself: an interesting feature of failure is the social and psychological effects, even within highly coherent communities, that cause us to ignore or dismiss the hints and signs of its imminent arrival (Figure 1).

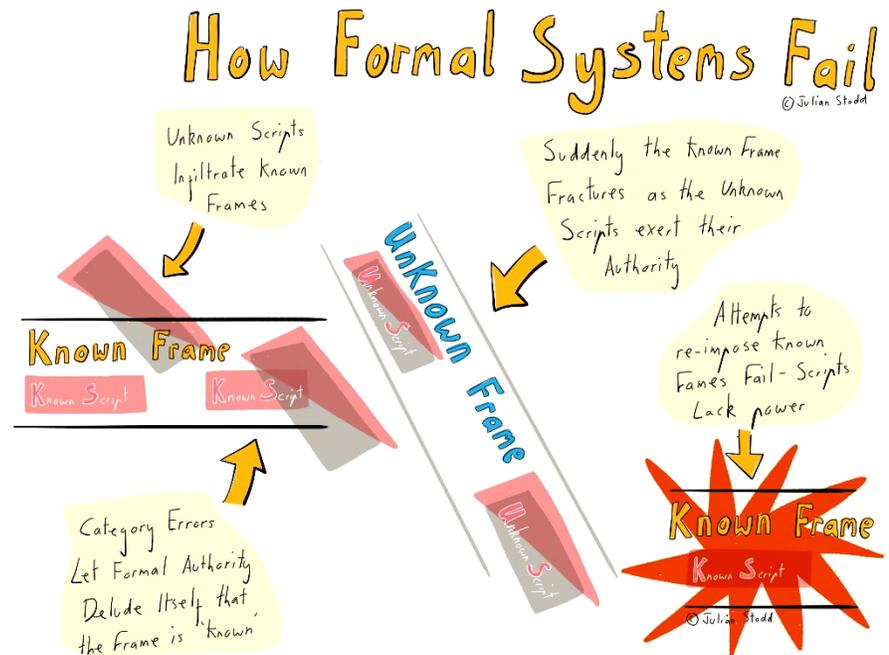


Figure 1. Summary picture of how Formal Systems Fail in a black swan event.

That will require us to navigate the dynamic tension between the formal and social systems: where formal systems prevail, we build massively strong, visible and hierarchical, system and process based strength. Where social systems triumph is through trust-based networks of reputation: sense-making entities powered through tacit and tribal knowledge. The Socially Dynamic organization ties into both and maintains a dynamic tension between the two.

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A Middle Space of Engagement

Networked and socially moderated authority can largely only be disturbed through engagement. Take the example of white hat hackers: if we view the world in simple terms with software companies being good, and hackers being bad, we condemn ourselves into a cycle of conflict perpetuated through socially moderated systems of respect and power. By contrast, if we create space for white hat hackers, spaces where people can carry out hacking activities, be recognized and rewarded for them, but be recognized and rewarded by the formal system, if we create spaces where subversion and disruption can become useful, but still operate outside formal system, process, and control, we can create a middle space of engagement.

This middle space of engagement does not disrupt networked power, but it significantly reduces the power that you can wield, because there are now two choices: people can engage in fully subversive activity, or they can retain their freedoms but still engage in certain types of activity, which are more aligned with established or acceptable social systems. We can de-power the system. We can create a middle context, indeed, a context that we can learn from in the formal system.

ORGANIZATIONAL ECOSYSTEM FACTORS

We can track current models of command and control back to a time when messages flowed slowly (via film crews, field telephones, semaphore and ships) through constrained communication and transport infrastructure (Baggott, 2011; Schlosser, 2013). The limited factor was infrastructure: but today, infrastructure is everywhere. We are surrounded by it, often increasingly democratized, with multiple layers of redundancy, anonymity, resilience, and lack of any clear oversight. In other words: my connections are now under my own control, within my immediate reach, not under the control or oversight of an organization, nor contained within the formal hierarchy.

Our premise is that we need to explore new models of organizational design that are better suited to the prevailing ecosystem, and that our key reason to do this is to build greater resilience, and to be better able (to be better adapted) to the asymmetric, unknown types of disruption that we increasingly face.

To build a new type of strength is not to abandon the old: it is to evolve it. We talk about a Dynamic Tension, because a Socially Dynamic Organization will be one that has both types of power. Strongly formal and structured, but strongly social and connected. Able to mobilize through bonds of power, but also connected through bonds of trust.

Irrespective of whether we adapt, those who stand in opposition are already doing so and utilizing strengths and weaknesses to their advantage. Looking at the example of ISIS terrorism several things become apparent:

1. The foundational power of Islamic extremism is a networked power
2. In this context, and empowered by democratized and resilient social collaborative technology, membership (or alignment with) such entities can be either membership based (along traditional lines) or subscription (adoption of ideas, with no 'direct' connection or communication).
3. The willingness of insurgents to exploit asymmetric authority, coupled with a deep understanding of the power of stories to spread, aggregate and amplify messages, leads to a sphere of influence that far outstrips the direct sphere of action.
4. There is an emotional component that can provide impetus in a social community that has usually been removed or sanitized in a more formal structure.

Whether deliberate, or fortuitously (from their perspective), many of the emergent features of our new ecosystem enhance the ability of insurgents to develop networks and operationalize creative and persistent disruption, while concurrently diminishing the ability of the formal system to counter it: indeed, we end up the worst space, where we maintain an ability to counter, or at least control the worst impacts of the threat, but only through vast expenditure of resource and energy, without tackling the core challenge.

APPLICATION OF CONCEPT

We propose a learning concept that focuses on increasing strength through highly engaged, high trust (Maister, Green, Galford, 2000), and reputation led, social communities. Additionally, we will provide case studies of military and non-military organizations that have applied similar concepts: they maintain a dynamic tension between formal and social systems which has allowed them to learn fast, evolve rapidly, and become highly resilient.

Amazon is a highly successful company, engaged in a broad range of spaces. It takes a range of approaches to innovation, one of the most interesting of which sits with its Department of ideas: the role of the Department of ideas is not to have the ideas, but hold open the space in which ideas may emerge. This may seem like a subtle distinction, but it's an important one, and not one that would work within any organizational culture (Stone, 2013).

There is a train of thought that the reason why Microsoft was behind the curve in every application of emergent spaces for the last 20 years, from mobile, to cloud computing, was because Bill Gates remained as chief software architect. If you had a great idea, who did you have to impress? While Amazon has great formal strength, innovations such as shared services emerged from further down the hierarchy. The organization was more willing to listen to hierarchically weak voices that were deeply curious, who in theory in many organizations would never have been heard unless they had a significant flexibility.

Amazon's Department of ideas does not lack structure, it's just that the structure is designed to be facilitating and enabling, using formal judgement, and social filtering mechanisms to make sense of all the noise. Through this approach, they are able to take thousands of ideas and filter them down to a highly valuable subset that are both strongly presented, and also have been highly filtered through the wisdom of the Socially Dynamic organization itself, filtered through the sense-making communities. As ideas progress through the system, they gain access to progressively greater levels of formal, financial, and infrastructural support.

And for every group that listens to weak voices, there are others that follow the formal path and ignores them. Sometimes out of those lessons come great training and educational opportunities. The USS Vincennes accidental shoot down of an Iranian commercial aircraft created one such criticality of information and positive outcomes (for more information, see Saltus, 1994, and Fisher, & Kingma, 2001). A deeply hierarchical organization, aided by the most advanced tracking radar, ultimately was forced to rely on human decisions before engaging with a potential enemy, and in the midst of the incident, voices that challenged the leadership view were silenced. In the wake of the investigation that followed, the Office of Naval Research sponsored a research and development effort called Tactical Decision Making Under Stress (Johnston, Cannon-Bowers, & Salas, 1998), to improve crew performance in small teams.

One could read this example as something that could be replicated within any organization, but that is to miss the point. It's only because the organization is Socially Dynamic that it is able to hear the weak voices in the first place.

If we build our organizations to be too highly dependent upon formal structures, safe and secure, but governed by hierarchical power, then we will lack the ability to hear those weak voices.

We can consider three specific responses to the limitations of formal hierarchy to deal with black swan types of disruption:

1. Develop high social authority within leadership teams
2. Nurture sense-making structures and capability within the social system
3. Build high trust networks that cross formal structures of power

High Social Authority

Formal authority is that which is given to us by the organization itself: it sits within bonds of power within the hierarchy. Formal leaders inherently have high formal authority, and the further you progress within the structure, typically the greater your formal authority becomes.

Social authority, the type of authority that is held by social heroes and social leaders within the hidden structure of the organization, is contextual, consensual, and based upon our reputation, earned over time, through our actions into the community. To give an example, most people develop an awareness of to whom in an organization who they should go to when asking for help, or who has a strength at finishing tasks.

To help us counter the limitations of formal hierarchy, we should build layers of strong social authority both within our formal leadership structures, but also more widely within the population, and further down the hierarchy. Ideally, the layers of social authority should vary in nature. Diversity and flexibility go hand in hand.

Formal leaders may earn high social authority, while Social Leaders, with high social authority, may have almost no formal authority whatsoever. Within the formal structure of the organization, the structure that is able to achieve effect at scale, its formal authority that counts. It is no coincidence that it's the strong, formally hierarchical, Victorian legacy organizations that we see failing around us. Achieving effective scale within the known structure, facing known disruptions, is not enough when the disruptions that we face are increasingly asymmetric and powered through networked types of power. Stodd proposes nine aspects of Social Leadership, enabling Organizations to build a bridge between the formal and social structures. We will explore three of them: Narrative, Engagement, and Technology.

The first Dimension of Social Leadership is Narrative: this is about curation, storytelling and sharing. It's about you, yourself, inward looking, taking a stance and thinking about how you position yourself in your environment. It's about

finding things out, finding the meaning in it and sharing it with relevant people, adding value as you do so. It's about being part of the conversation instead of part of the noise.

Whilst Social Collaborative Technologies allow us to share easily, so much of what is shared, copied and transmitted is simply noise. To be effective, Social Leaders cut through the noise with relevance and clarity.

Narrative is about **curating knowledge**, finding the **meaning** within it through 'sense-making' activities, **forming stories** and understanding how to **share** and **amplify** these. Narrative skills form the heart of personal effectiveness for Social Leaders.

Engagement is about understanding the **shape** and **structure** of informal and formal **communities**, understanding **how and why people come together** to work and learn. Reputation is the engine that powers our **effectiveness**: it's based on **actions**, not **hierarchy**, and authority is the outcome.

We seek authority as leaders, but Social Authority is based on everything we've seen so far: curating knowledge, finding meaning, telling stories and understanding the ecosystem in which they exist.

Following Engagement comes Technology. This isn't about circuit boards and operating systems, it's about social collaboration, fairness and reach.

Technology is about **socially collaborative conversations**, about the **co-creation of meaning** in communities, about supporting **Engagement** and **development** in these communities and about **collaborating**, to achieve more than we ever can alone.

Sense-making Communities

Within the formal system, we see a number of organizing principles: individuals into teams, teams held within functional vertical structures, structures making up an organization. All visible, hence all formally defined. Membership of these communities is within the control of the formal structure, and the rules by which they operate are fully controlled. But knowledge often sits outside these structures (as, indeed, does capability), within what is often described as 'tribal' groups: tacit knowledge that is out of earshot of the formal organization, but is deeply grounded in the everyday reality of practitioners.

There is good reason for us to be interested in these tribal structures: they often demonstrate a devolved and remarkable 'sense-making' capability. If our formal strength is codified into systems, rules and processes, doctrine, then our 'social strength' is held in these sense-making communities, and against the disruption of the Social Age, this type of socially moderated strength is ever more relevant and powerful.

How do we spot this sense-making capability?

In our everyday reality, it's seen as social filtering and recommendation, as well as local guidance and capability. It's often a mystery to formal organizations why some teams are more 'capable' than others, but in many cases, this is because (through the individuals and the connections that they have), they have greater access to this tribal knowledge.

Interestingly, we may also spot this capability, expressed as a lack of conformity: because socially moderated knowledge is often dynamic and adaptive, it can end up running contrary to formal knowledge (which tends to be static and codified), so can be expressed as non-compliance, rule breaking, or disruption.

We can identify some core features of the sense-making communities that lie behind its capability: connected through strong social ties, holding high bonds of trust, often recognizing strongly authentic storytelling, often centered around high lived experience, frequently holding deep specialist expertise.

Social communities, although existing outside the formal system, are not flat entities, but rather are governed by fluid structures that tend to be more contextual in nature, and the authority of which is moderated by the community itself (Stodd, 2014).

The mechanisms by which communities are 'sense-making' have been expressed by Jarcho (2014) as 'seeking, sensing, sharing', and by Stodd as 'curating, interpreting, storytelling'.

In response to a specific challenge or question, they seek out broadly relevant material, sourced through individuals and related communities, they use social filtering to make sense of it, they interpret it to be relevant to the context at hand, and they share relevantly, to add signal to the system. The process of interpretation is carried out both individually, and in a shared context of 'cognitive surplus' (Shirky, 2010), where each individual within a community may add to the shared narrative: shaping and moderating it according to their individual context and reputation. The reputation piece is important: reputation is awarded by the community, dependent upon quality of interaction over time, and is the hard currency of social communities.

Within this context, the ability of an individual to 'make sense' of a situation, indeed, the ability to lead, relies on the two pillars: to have strong, formal, visible sight of the situation and context (which gives us the traditional situation of leadership), but also to have strong access to socially moderated sense-making (which provides access to weak voices, socially filtered through the community, a community that may cross and parallel formal structures).

Indeed, strong social communities will likely be permeable to expertise, which presents unique challenges in military contexts (although we should recognize that this has always been, to a certain extent, true: it's just that, in an age of collaborative technology, the ability of people to connect is now largely democratized and invisible to the formal system).

No matter how hard formal systems try to control communication, at scale, there emerge informal ways to collaborate: while we need to control, we also need to enable, and it's this balance which is specifically challenging.

Whatever the military context, there is a clear trend in the wider context of the Social Age: the democratization of technology, the democratization and proliferation of communication, the resilience and redundancy in communication, the empowerment and rise of social communities, the increased need for high social capital to thrive (Stodd, 2014), the significant rise of the Social Hero (who may mirror traditional 'heroes', but who may look more like Julian Assange, or even Donald Trump, figures with strong networked authority, who may or may not have any formal, and whose power is substantially unquantified in recognized metrics).

High Trust Networks

One specific context of this is 'trust'. Trust is held in strong social ties (Stodd, 2017), ties that may be invisible to the organization, and which are specifically separate from the formal ties of team structures. Our high trust networks seem to be primarily local, getting progressively weaker, the further they spread, with the exception of existing strong social ties, or perhaps existing team structures of loyalty and embedded, imbued, reputation e.g. Marines may trust other marines more, even if they have not had direct, shared, first degree, lived experience.

Communities in which this feature exists may be called 'gated cultures', ones where there is a very high barrier to entry, but once we are within the walls, access, and hence trust, may be universally higher. Indeed, this high trust may be a feature of their high performance, although it may also manifest as bias or confirmation bias, and indeed can be a feature of willful blindness to cultural failing, as in the recent cases of Marines sharing inappropriate photos of female marines, within closed forums (Chappell, 2017).

Gated cultures can be high performing, but also tolerant of certain types of counter cultural behavior, if the cohesive effects are deemed to outweigh the divisive ones: see examples of homophobia or racism in the Metropolitan Police, or the bullying of whistleblowers in the NHS, where the desire for social acceptance and cohesion outpaces internal notions of fairness and right.

High functioning strong social networks, ones with strong Social Leadership (Stodd, 2014), will be united through bonds of trust: and this is something that sits at the heart of our challenge around the disruptive aspect of Black Swan events, and the reason why formal hierarchies alone may not suffice.

Strong formal networks and codified power make us strongly able to respond, with formal strength, but strong social networks, high bonds of trust, and high social authority make us able to sense make beyond what the formal system

can achieve, make us able to hear weak voices, and make us better able to reframe (by challenging the authenticity of the frame) mis-categorised threats.

The Dynamic Tension between formal and social systems is not something we want to move out of the holistic system, but rather something we want to build and maintain: what is important is not to silence the voices, but to hear them, then to come up with ways to make sense of what we hear.

One approach to this is to use storytelling approaches to build wider networks of strong social ties during recruitment and onboarding.

During traditional recruitment approaches at a particular company, individuals find a primary cultural alignment with the local culture rapidly, so the initial, strong social ties, are forged with people within that cohort or company. But we can reengineer this to include opportunities, during the earliest stages of recruitment, to forge broader strong social ties: for example, through interview and storytelling. Perhaps getting new recruits to interview widely across the organization, then to work together to build shared narratives of what they learn. The point of these activities is to encourage movement outside the formal hierarchy, without challenging the validity of the formal hierarchy: this is to develop a dynamic tension, not to allow one system to fully dominate the other.

CONCLUSION

In this paper, we propose that there is a limitation in the ability of formal hierarchies to recognize and counter the challenge of Black Swan events. This analysis is based upon a number of inherent limitations of formal systems:

1. Their inability to hear weak voices, and hence to be less likely to challenge the Frame
2. Their great strength within the formal system to make them strong but brittle and inflexible: susceptible to asymmetric or unknown disruption
3. Their ability to search formal, codified knowledge, which may keep them within formal and known confirmation bias
4. Their lack of access to socially moderated, tacit, tribal knowledge
5. The inability of formal authority to operate within social spaces using formal power alone

We have seen a number of key features of our new ecosystem the Social Age. There is the emergence of a new type of power that challenges the existing forms of authority. We have seen the democratization of technology, and the proliferation of social collaborative technology. In the Social Age, we can observe the resilience of social networks and the multi-faceted nature of social communities. And as a rule, the Social Age is generally de-powering formal systems and empowering social ones.

We propose that we adopt learning and leadership strategies that allow us to adapt to this new ecosystem, specifically, we:

1. Develop high social authority within leadership teams
2. Nurture sense-making structures and capability within the social system
3. Build high trust networks that cross formal structures of power

We express a belief that there will be a new type of organizational design, optimized to cope with the unique, emergent, and fluid challenges of the Social Age. This will be a Socially Dynamic Organization: it will have great formal and traditional strength, but in parallel it will carry great social strength. It will maintain a dynamic tension between the two, not losing one type of power, but rather optimizing a new and balanced type of power. Both formally and socially moderated.

Our conclusion is that formal systems are inherently brittle to Black Swan events: no amount of reengineering will counter that. Instead, we must recognize, develop, and empower the social structure. We must invest in social learning capability, both for Organizations, and to address the core skills of the social learner. We are seeing increased interest in the 'Socially Dynamic Organization' within the wider commercial sector, which faces a similarly evolved

ecosystem, even if the challenges it faces are different. We therefore need to adapt our models of learning, of leadership, and or organization, to reflect this new world.

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