# **CHAPTER TWO**

# THE GOLDILOCKS PRINCIPLE: CREATIVITY, CRISIS, AND EDUCATIONAL PRACTICE

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## Abstract

An English fairy tale of uncertain origins, 'The Story of the Three bears' was originally published with recorded attribution to Robert Southey (1837). Incorporating the now famous dilemmas of a protagonist confronting options either too big, too small, too hot, too cold, too hard, too soft, or just right, what is now widely known as the story of Goldilocks and the Three Bears has become a common referential analogue for 'sweet spot' circumstances or conditions. From Stephen Hawkings famous evocation to describe the narrow habitable zone of the planet earth (2010), 'the Goldilocks Principle' is widely understood as a short hand for a position between extremes—of balance, possibility, and opportunity—has been applied to subjects ranging from astrobiology to statistics, and is equally applicable to creativity.

Commonly the subject of interpretive contention and debate, creativity can be at its most unambiguous in the context of a crisis. By definition circumstances where coincidence of novelty and value are both of heightened significance and constraint, creativity under pressure and against the odds is therefore always remarkable, whilst innovation that successfully mitigates for significant threats to life or livelihoods open the realms of heroism and invariably subject to celebration, particularly when attribution is clearly defined. Crises may involve considerable uncertainty but can also provide for extraordinary clarity, and certainly represent distinctive contexts through which to consider creativity.

Covid represents a global crisis by any definition. A protracted and intersectional nexus of problems spanning all aspects of social, professional, and industrial activity, the impact is projected to be measurable in multigenerational terms. A profound test of creative capacities for individuals, organisations, and society, the pandemic presented a very particular challenge for educators and educational systems already contending with serious issues of equity, ethics, value, sustainability, staff and student wellbeing, and for universities in particular, projections of significant increases in participation, competition, accountability, and spiralling costs (OECD, 2019). Disrupting all aspects of educational practice and focussing calls for a paradigm shift of strategy and approach (UNESCO, 2020), the pandemic is arguably the most significant crisis faced by global education systems for generations.

Focusing particularly on the response and experience of global higher education systems, this chapter reflects on both what the Covid crisis reveals about creativity and the creativity of organisations more generally, and what creativity means in the context of educational strategy. Reflecting on emergent themes, the chapter concludes by defining the Goldilocks principle of creativity as a conceptual framework for considering the creative opportunity, constraint, and interpretive value dynamic.

#### Introduction

Although often associated with effortlessness and eureka moments, that creativity is subject to constraint and inherently problematic is tautological. Creativity ultimately depends on problems and inhibitory factors to exist at all. Being the coincidence of novelty and utility, problems serve both to inhibit but also to inaugurate new creative potential. With appreciation and value graduating according to how profound and consequential, the utility and significance associated with all creative products, solutions, and ideas, are ultimately defined by their relationship to a problem and the context of its resolution. Whilst there are of course limits at the extremes, no lock ultimately has significance without securing access to something important, or value without difficulty and timeliness in its picking.

Crises disrupt normal patterns of creative behaviour, but ultimately elevate the value of creativity and produce new creative potential. The more profound (breadth/depth) or problematic (novelty/seriousness) the challenge, the more significant a solution. Whilst there is an enduring notion that constraints 'kill creativity', of course some form of inhibiting factor is required for creativity to occur (Rosso, 2014). Whilst extremes of fear, anxiety, or physical peril are of course inhibitory to playful thinking, there can ultimately be no ingenuity without some form of puzzle to solve. Nevertheless, there being a distinction between 'emergency' and 'crisis', (Callahan, 1994), as highlighted in the use of Mike Tyson's famous quote in the preface to Freedman's history of strategy (2015), 'Everyone has a plan 'til they get punched in the mouth'.

The global pandemic proliferated problems and challenges of creative adaptability (Orkibi, 2021) in all areas of society, at all scales of significance, and in rapid time. Emerging in Wuhan, China towards the end of December 2019, Covid-19 was identified by the World Health Organization (WHO) as a global epidemic on 31st January 2020 and later as a pandemic on the 11th March (Mofijur et al, 2021). With over half a billion confirmed cases, more than 6 million deaths (WHO, 2022a), and a total excess mortality associated directly with the pandemic of approximately 14.9 million in 2020 and 2021 (WHO, 2022b) at the time of writing, the total economic cost is calculated as being in excess of \$16 Trillion, representing 15% of global GDP or \$2000 for every person on earth (Yeyati and Filippini, 2021; IMF, 2021). With negative environmental impact resulting from massive quantities of plastic medical waste (Patrício Silva et al, 2021), increasing energy insecurity due to delays in infrastructure projects (Mofijur et al, 2021), and a statistically significant post-viral impact in terms of Long Covid-described as a 'medical challenge of the first order' (Lancet, 2021)-the pandemic has widened existing inequalities and increased human suffering worldwide (UN, 2020). The pandemic is a problem still being solved.

Recognising that healthcare bore the most significant brunt of the crisis, global education systems were also subject to extraordinary disruption. No institution was adequately prepared, much less for what ultimately became so protracted and widespread secondary restrictions. Indeed, it is described as having "brought many educators and education systems to the brink of collapse" (Reimers and Opertti, 2021). With a billion school age children identified within months of school closures as being at risk of falling behind, the stark reality of digital inequality means that online learning may only have been reachable by a quarter of schoolchildren worldwide (UNICEF, 2020), and the efficacy of related educational experiences suboptimal at best for those able to engage. With analysis by the World Bank predicting a risk of a loss, for students currently in full-time education, of \$17 trillion of lifetime earnings at present value based on related increases in educational poverty and general under-attainment (Ahlgren et al, 2021), urgent questions are being asked and strategic direction re-thought in educational systems worldwide, as they are for all businesses and professions.

For higher education in particular, the pandemic represents an extraordinary period of activity rich with challenge and educational drama. Systematically, the pandemic drove significant work in terms of financial and contractual adjustments (Smalley, 2021), and, across Europe, North and South America, Africa and Asian universities in particular, stimulated an urgent repositioning of strategic purpose, policy, and practice (Bergan et al, 2021). All institutions have had to innovate rapidly on multiple fronts, face the challenge of supporting a generation of students in the coming years who have experienced serious disruption to their educational development, and confront a changing post-pandemic world. This has required and will continue to require new ideas.

Being the coincidence of novelty, relevance, and effectiveness (Cropley, 2011), creativity can most simply be defined as problem solving. Covid has been, and at the time of writing continues to be, a globally significant problem. This chapter therefore explores creativity through the lens of the pandemic response. With a specific focus on global higher education, consideration is given to individual, societal, and organisational creativity, and to how insights from the pandemic might inform strategic approaches in both post-pandemic recovery and redirection. Finally, the chapter concludes with consideration of a Goldilocks principle of creativity as a conceptual framework for considering the creativity and constraint dynamic.

## **Pandemic Creativity**

Whilst profoundly disruptive, the Covid pandemic has also been a catalyst for remarkable creativity in almost every domain imaginable, and perhaps most evident in terms of the response of global medical and healthcare systems. The development of multiple efficacious vaccines in less than a year from first publication of the genetic sequence on 10<sup>th</sup> January 2020 is unprecedented scientifically (Fauci, 2021), and the global programme to administer vaccines has been equally remarkable logistically. From the first dose in December 2020, nearly 12 billion have been administered to over 66% of the world population (Richie et al, 2020).

Research and development as well as logistics and supply chains were rapidly configured and accelerated. Developing and scaling production of effective COVID tests within a matter of weeks, serious shortages of protective medical equipment were confronted by a wave of entrepreneurism, factories were set up by hospitals, and improvised solutions were found for testing of unconventionally sourced medical supplies (Hausman et al, 2021). Typical of many industrial sectors, companies such as LMVH in France rapidly converted their perfume factory towards sanitiser production (Fox, 2020), electronics companies such as Foxconn converted production lines in China for surgical masks, whilst significant parts of the fashion industry shifted production from shirts to medical clothing.

Maintaining a Coronavirus Resilience Innovation Index, research centre StartupBlink (2021) has ranked global Covid innovation across 60 countries against categories including prevention, diagnosis, treatment, information, life and business adaptation, commerce and supply chains, and digital economy. Highlighting countries such as the US, Canada, and Israel, where some sectors including the digital economy flourished, whilst dominated by Europe and North America in the top 20 countries, significant innovation is also noted in Singapore, South Korea, Australia, and Kenya as the top ranked African nation. In terms of specific cities and regions, established innovation hubs such as San Francisco dominate in North America, Moscow is the 3<sup>rd</sup> ranked city globally due significantly to the speed by which the Sputnik V vaccine was deployed, whilst London, Toronto, Taipei, Seoul, and Tel Aviv also feature prominently.

Collating 34 articles exploring the impact of Covid-19 on societal creativity and innovation (Tang, et al, 2022), the significance of creativity as a means of coping through meaning making during lockdowns was perhaps the most significant emergent theme (Kapoor and Kaufman, 2020). Using the 4C model of creativity (Kaufman and Beggheto, 2009), whilst evidence indicates less significant impact on Pro-C or professional creativity-the rapidly coordinated healthcare and educational responses notwithstanding-increases in everyday or 'little-c' creativity were more evident, with related activities closely linked to wellbeing (Mercier et al, 2021). Mastery being closely linked with positive affective benefits (Grandley et al, 2021; Windle and Woods, 2004), it is perhaps no surprise that global lockdowns led to increases in therapeutic engagement with current and inauguration of new hobbies (Fullana et al, 2020; Brooks et al, 2020; Lades, et al, 2020). Musicians gave impromptu performances from balconies, communities sang together down otherwise quiet and empty streets, and social media filled with individual stories of culinary endeavour, creative writing, and craft, for those fortunate enough to have access to relevant opportunities and resources. Noting ongoing contention regarding the efficacy of positive and negative affective mood states in terms of impact on personal creativity, studies nevertheless indicate significant lockdown-related creative productivity (Lopez-Persem et al, 2022) with measurable benefits for wellbeing (Morse et al, 2021).

#### **Educational innovations**

The creative pandemic response of educational systems has been significant. Collating 31 case studies relating to preschool, primary and secondary education, Reimers and Opertti (Eds, 2021) group global pandemic related educational innovations into 5 categories:

- 1. Supporting student-centred learning
- 2. Supporting deeper learning
- 3. Supporting student socio-emotional development and wellbeing
- 4. Teacher and school principal professional development
- 5. Family engagement

Noting that category 1 broadly encompasses categories 2-5 for the overwhelming proportion of students in education globally, significant organisational innovation is evident in terms of the agility by which educational systems adjusted to lockdowns. Where rates of access to power, internet and digital devices were lower, print resources were rapidly produced and distributed such as in countries including in India and Uganda, radio broadcast and text messaging was adapted used in countries including Sierra Leone and Liberia, social media employed more strategically by many countries including Egypt, and smartphones used in approaches in Bangladesh and Pakistan.

Where national infrastructure supported more actively digital approaches, countries such as Uruguay, for example, rapidly implemented a national online learning platform and a programme for ensuring laptops and internet access for all learners, whilst individual face-to-face tutoring was implemented in countries including Mexico and the UK. Project-based and independent learning was expanded and actively supported in countries including Egypt, Saudia Arabia, Uruguay, Mexico, Finland, Bangladesh and Pakistan, and, whilst teacher development was significant in all cases, it was a key focus for many nations including Brazil, Peru, Guatemala, Brazil, Kenya, Uruguay, Peru, and China.

For universities, futurologists including Bryan Alexander (2020) had speculated in quite prescient detail about the potential disruption of a pandemic, just as Covid was emerging in the global consciousness. Whilst the overwhelming majority of universities had business continuity planning in place, no institution had a plan for what was to follow and all, to one degree or another, were already contending with major challenges related to staff workload, student and staff mental health and wellbeing, regulatory changes, cost, teaching modalities, and/or disputes over pay and job security. That the pandemic represented a crisis was obvious. That it may also present a creative opportunity was nevertheless also immediately recognised (Devinney & Dowling, 2020).

Already dealing with the impact of international travel restrictions for staff and students early in 2020 (Martel, 2020), with thousands either concerned about being able to return home or unable to travel, whilst all universities were of course monitoring the situation extremely closely, millions of staff and students nevertheless received a matter of a few hours' notice of an unprepared for move to remote working. For many staff working in European universities in particular, there were only a matter of days between firm institutional commitments to remaining open, before campuses closed to all face-to-face activity. Country by country, national lockdowns of varying degrees of stringency swept across the world as infection rates and hospital admissions rose, and by the end of March 2020, 150 countries had closed educa-tional institutions nationwide effecting over 80% of the global student population (Sahu, 2020) of over 230 million university students (Unesco, 2022). No institution in any country had a plan to turn to for what followed and for many, the proverbial writing on the wall was observed whilst colleagues made their way to cars with books and office pot plants in arm.

Fortunately for many higher education systems operating on a trimester model, the timing of enforced closures coincided with reaching the end of an academic cycle. With obvious uncertainty over the likely timescales involved, by far the most common approach taken by universities around the world was simply to 'move everything online' with the hope of disruption being temporary. With the majority of global higher education institutions having at least an active web presence, where virtual learning environments (VLE) or learning management systems (LMS) such as Blackboard Learn, Canvas, Moodle etc., were already in place, these were rapidly repositioned at the heart of learning and teaching. With significant increase in the use of multiple social media channels by universities, most institutions had multiple channels of communication available by which to interact with and publish information for students. Whilst many universities moved quickly to rapidly implement new systems and online tools, and in many cases took the pandemic as an opportunity to make more fundamental changes such as migrating to alternative learning management system (LMS), the overwhelming majority maintained a focus on effective application of existing systems and mechanisms to improve access to digital tools for students and staff.

Initial approaches were very much the definition of "emergency remote teaching" (Hodges et al, 2020 in Brown and Krzic, 2021). Whilst considerable progress has been made with respect to educational technologies and digital capabilities in the decade leading up to 2020, remote working nevertheless exposed a range of immediate challenges and in many cases simply pushed existing problems from one modality to another. Timetable confusion and not being able to find the right lecture room simply became 'problems with logging in', limited student engagement or participation in class became 'won't turn their cameras on' (or can't), disruptions to classes due to fire alarm evacuation tests became WIFI outages or software update windows, and those facing financial hardship that had previously disrupted their ability to afford travel to campus, now instead confronted the need for expensive IT equipment and a space to study. Digital capabilities were seriously tested and, recognising the uncertainty of the early stages of lockdown, it took time for clarity to emerge about what was foundational for effective online learning and university business-WIFI (connectivity), audio (audibility), video (visibility), and study space (comfort)-and for universities to implement strategies for strengthening and assuring these.

The pandemic required adjustment to all aspects of educational culture and practice. Serving to collapse the geographical and temporal boundaries between home and work, the once separated realms of the domestic and the professional became entirely unsegregated. Relying immediately on creative adaptability, or the "cognitive–behavioural-emotional ability to respond creatively and adaptively to stressful situations" (Orkibi, 2021), perhaps the most significant aspect of educational creativity lied in adjusting practice and adapting to new working space, both for teachers and learners.

There were remarkable parallels in early pandemic experiences around the world. Research by Globalization Partners across 15 countries (2021) highlighted a number of key trends in worker experiences. In all industrial sectors, employees felt happier about their jobs, less connected with their colleagues, whilst work-life balance featured as the top employee benefit contributing to a positive experience. In universities, the Global Higher Education Research Snapshot (Salesforce.org, 2020), undertaken between August and September 2020, identified 5 key themes in the experience of university students and staff months into lockdown, consistent across 10 surveyed countries. Negative experiences of connection, trust, and wellbeing, were off-set by positive experience of increased flexibility, and an increasing focus on future careers.

Positive and negative effects of a sudden move to online learning in the context of a wider social crisis were clear. Interviews with students in China, for example, where lockdowns of on campus students were amongst the most stringent in the world, indicated negative experience of significant increases in screen time, but also the reassurance for many to be able to avoid the anxieties of the classroom (Wu et al, 2022). Surveys of students in the Autumn of 2020 indicated significant impact on student experience related to anxiety and mental health, but also appreciation of increased control over study activity (ONS, 2020).

For universities relying more consistently on online delivery approaches, whilst 'online learning' and 'students studying online' remain common terms, there was a recognition early in the pandemic of the distinctiveness of individual circumstances. Perhaps due to the shared experience of tutor and student, where all stakeholders found themselves 'online' whilst in domestic environments, the social orientation of educational practice became more evident and relationships changed, even including spontaneous expressions of love from students for their tutors during Zoom lectures (Humphries, 2020).

Significant work is also evident in terms of instructional design through the pandemic. From initial 'lift-and-shift' approaches to teaching modality, teaching practices and learning activities were rapidly reconfigured towards more effective instructional design. The publication of lecture recordings and asynchronous learning activities, for example, led many academics to realise early on that they could interact with students in different ways. Scheduling 'watch along' sessions where students have opportunity to interact with the tutor via chat channels in real time, the approach also afforded flexibility in situations where student cohorts were scattered across multiple time-zones. From virtual engineering site visits and chemical engineering labs, performing arts collaboration via Zoom and virtual reality, and online legal advice clinics, courses of study with more practical challenges adapted in extraordinary ways. Finally, perhaps the most significant area of transformation in educational practice related to measurement and adjusting approaches to assessment in universities to assure transparency. There being an evident and immediate challenge with respect to assuring academic integrity for assessment undertaken online (Reedy et al, 2021), student cheating in online exams in particular, whilst a distinctive area of nefarious creativity, was immediately recognised as a significant problem (Lancaster and Cotarlan, 2021). Whilst a perennial issue in universities, beyond implementing draconian and ethically problematic proctoring and digital invigilation systems for assessment focused on memory or recall, the only alternative was to rethink assessment design. Recognising the coincident challenge related to student wellbeing, closed book exams gave way to more open, flexible, continuous, developmental, and arguably more authentic modes of assessment (Losad, et al, 2020).

# **Disorganizational Creativity**

Whilst innovation commonly features in institutional strategic mission statements, universities nevertheless remain remarkably conservative organisations compared with other business and industrial sectors. Traditional approaches—as indicated by global university rankings—predominate and notionally succeed, and whilst there are of course variations in pedagogical approach by region and institution, the reality is that disciplinary conventions are pervasive.

Whilst it has been an extraordinarily challenging and indeed traumatic adjustment for many, the Covid-19 pandemic has nevertheless been at least in part positively disruptive, served to accelerate progress on multiple fronts, and helped to pull down any remaining barriers regarding application in particular of relevant technology in learning, teaching, and organisational activity. Conversations have been enriched through the chaos and developmental change has become front and centre strategically.

Whilst creativity in higher education has been evident systemically, this is overwhelmingly confined to areas of organisational agility and adaptability. The speed by which universities with medical research and education facilities, for example, began to contribute to research, testing, hand gel manufacture, and release of medically trained staff, is notable, and speaks to the civic mission of institutions, but the creativity of universities has arguably been more significant in terms of how this was distributed and devolved. Control being both lost and gained as a consequence of lockdowns, organisations in general became less 'organisational' in crisis and more reliant on the ingenuity of individuals amongst procedure; as universities have arguably always been.

Considering Woodman's (et al, 1993) model presented in Figure 1, the characteristics and knowledge of individual academics as well as the cohesiveness of departmental groups far outgunned institutional strategy or structure in terms of supporting creativity and problem solving, whilst isolation at home became the obvious immediate constraint and the only available context for enhancement.



Figure1 : Organizational creativity. Adapted from Woodman, Sawyer, and Griffin (1993)

Reflecting a remarkable period of "digital growing up" (MacIntosh in Ewing, 2021), somehow, students and staff in higher education managed to successfully improvise their way through extraordinary circumstances and significant challenges. Whilst areas of suboptimal practice are evident and clearly identifiable Pro-C innovation perhaps more difficult to pin down (Kapoor and Kaufman, 2020), the sheer scale of what was achieved in overall terms is hard to categorise in any other way. If only in terms of resilience and coping, everyone was creative during pandemic lockdowns. There was no other option.

In terms of what the pandemic reveals about universities as creative organisations, what global higher education achieved is paradoxical. Whilst of course it has not been possible to fully replicate the on-campus experience, to suggest that all on campus programmes could move learning, teaching, and assessment online in a matter of days and weeks would have been laughed at before March 2020. It would not have been possible before the pandemic, was made more difficult because of the pandemic, but would not, ultimately, have been possible without it.

## **Reorganizational Creativity:**

# Where Next for Higher Education?

Covid has fundamentally altered global education (WEF, 2020) and whilst the negative consequences of the pandemic are clear, it is important to ensure that positive outcomes are also acknowledged. The United Nations focus on 'building back better', for example, recognises that "an exclusive focus on 'learning loss' and addressing the decline in learning opportunity implies a troubling conservative bias, emphasizing the restoration of education systems as they functioned prior to the pandemic, and neglecting the fact that, for many children, they did not deliver very much" (Reimers and Opertti, 2021).

Much of the 'what' and the 'how' configured in response to the crisis is worth retaining, whilst other areas of educational practice now more clearly worth recovering. There being identifiable benefits of e-learning (Maatuk, et al, 2022), analysis by McKinsey, for example, identified a wide range of work activity related to education more generally that can be completed remotely with little or no loss of productivity, whilst educational activities including coaching, provision of advice and feedback, critical decision making, collaboration, and problem solving, being much more effective undertaken in person (Lund et al, 2020).

Consequently, 'blended' and 'hybrid' models of educational practice now dominate thinking in universities around the world (Ewing, 2021; Radić et al, 2021) and are reflected in international initiatives. The International Bureau of Education's HELA initiative (Hybrid Education, Learning and Assessment), for example, has established eight interdependent goals to frame educational development in response to the pandemic, with clear emphasis on integrated approaches:

- 1. Promote the integration and complementarity of face-to-face and distance education.
- 2. Support a diversity of hybrid modes to help learners develop the breadth of competencies they need
- 3. Support the development of structured progressions of learning trajectories across educational levels and provisions
- 4. Revisit the relevance and organization of knowledge in the curriculum
- 5. Reimagine the relationships between educators and students
- 6. Reinforce partnerships between education and a diversity of stakeholders
- 7. Use technology to democratize access to knowledge
- 8. Strengthen the bonds among schools, families and communities

Recognising that it will take years to fully reflect and learn from the experience of the pandemic, universities at least now have the certainty of requiring better plans for responding to sudden disruption of modalities of

work. Whilst there remains the risk of responding to this certainty with a prepandemic perspective, significant work is nevertheless routine across global universities in business continuity planning, with resilience and 'pivot potential' consistent themes (Gibbons, 2021).

Autonomy being identified as the 'keystone for an effective and efficient higher education sector' (Erçetin, Ş. and Yılmaz Fındık, L, 2018), whilst there are variations in the level of autonomy under which international universities operate (Kohtamaki and Balbachevsky, 2018; Ren and Li, 2013), higher education remains the most autonomous of all educational systems in most countries and it is the internal autonomy of universities that ultimately enabled an effective pandemic response; Universities were successful in part because there was no plan. Effective actions did not flow from 'systems in place' in most cases and whilst organisational creativity may well stem "from development of the entire system" (Borghini, 2005), autonomy should be embraced rather than mitigated for and the capacity for play and playfulness developed (James, 2019; Whitton and Moseley, 2019). Higher education will undoubtedly rely on this agility again.

## The Goldilocks Principle of Creativity

The themes of shelter, comfort, sustenance, safety, and rest, in the story of Goldilocks and the Three Bears are particularly apt considering creativity and the Covid crisis. With millions literally retreating to garden sheds, contending with unfamiliar choices, and concerned about threshold threats to the home, the story could have been written as a parable of lockdown remote working.

Whilst of course only a modicum of creativity would usually be required to find ways to warm cold porridge or to soften a hard chair, the Goldilocks principle nevertheless provides a conceptual framework that is situationally adaptable and particularly pertinent in the context of creativity and crisis circumstances.

Firstly, the principle recognises that there are limits to creativity and that not all situations involving problematic novelty incorporate potential for their resolution. Dependent both on the context and those that are affected or able to participate or exert influence, there is always a threshold line of separation between that which is possible and that which is impossible. Simple to recognise retrospectively and to define in extremis, there are problems that are simply insurmountable and all problems have the potential to be insurmountable.

Secondly, the principle recognises the redundancy of creative potential where more accessible or immediate solutions to a problem are available. Elaborative or complex solutions to problems may be technically impressive, but aspects of elegance and simplicity most certainly constitute more creative responses, especially in terms of expediency. Speed and simplicity are more valuable solution parameters, especially in the context of serious problems including threat of collective harm. Sometimes the most creative solution is simply the vision required to identify and follow the line of least resistance.

Finally, the principle reflects that in any situation with creative potential, there is always the possibility of an optimal synergy between creative capacity and opportunity, as well as an identifiable most creative solution. Defined again by the problematic context and the position of those contending with it, there are circumstances where the wavefront of potential for insight is nudged to collapse fully because of suboptimal conditions and which enable high levels of creativity to be realised.

For creativity to exist, there need to be problems. For problems to be solved, there needs to be creativity—or at the very least serendipitous fortuity. To fall within the sphere of creative possibility, problems ultimately need to be not too hot as to be untouchable, too cold to the point of irrelevance, but be warm enough both to illicit value and embody potential in context for resolution. Under crisis circumstances, most routine creativity is at best disrupted and in large parts overwhelmingly inhibited, but new realms of creative potential are nevertheless also initiated. These may prove unresolvable in context but can also incorporate at least the potential for remarkable creativity.

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