Scenario 2 – The New Wiggle Room

This is a world in which the promise of secure digital technology, the Internet of Things (IoT) and large-scale machine learning (ML) – to transform a range of previously messy human phenomena into precise metrics and predictive algorithms – turns out to be in many respects a poisoned chalice. The fundamental reason is the loss of "wiggle room" in human and social life. In the 2020s, societies confront a problem opposite to the one with which they have grappled for centuries: now, instead of not knowing enough and struggling with imprecision about the world, we know too much, and we know it too accurately. Security has improved to the point where many important digital systems can operate with extremely high confidence, and this creates a new set of dilemmas as precision knowledge takes away the valuable lubricants that made social and economic life manageable. As the costs mount of not being able to look the other way from uncomfortable truths, or make constructively ambiguous agreements, or agree to disagree about "facts" without having to say so, people find themselves seeking a new source of wiggle room. They find it in the manipulation of identity – or multiple and fluid identities. This effort to subtly reintroduce constructive uncertainty and recreate wiggle room overlaps with the emergence of new security concerns and changing competitive dynamics among countries.

The "precision knowledge problem" began to emerge in a remarkably mundane manner (though it didn't seem mundane to the people whose properties were at stake). In 2020, the city of Portola Valley, California, completed deployment of a sensor "blanket" that made it the smartest city in the world, with every street and every property densely packed with GPS-enabled sensors measuring temperature, water flow, sound, pressure and other ambient qualities.

It was a technological marvel – and a complete social disaster. Neighbours who had lived comfortably next to each other for a decade began to fight over tree limbs that crossed property lines by a matter of centimetres. Fully half of the homes in the city were found to be encroaching on permitted boundaries that were now being measured precisely. Dogs and cats that wandered without regard to property lines had their movements recorded, and neighbours sent clean-up messages (and bills) to each other, with time and geolocation stamped data to document the intrusion. Noise pollution from loud music and cheering during TV football games became a precisely measurable externality. Lawn sprinklers had to be replaced with extremely expensive systems that could adjust their spray angle and intensity in order to avoid overspill in windy conditions.

The media outside Silicon Valley had a wonderful time lampooning what was going on, as the ultimate absurdity of the rich and their "first-world problems". But for the city of Portola Valley, where the courts and police and permitting authorities saw their caseload go up by a factor of ten in a year, it wasn't funny at all. It was a rude awakening about how much of day-to-day life actually depended on people *not* knowing exactly what their neighbours were doing. The smartest city in the world was now also the most contentious and one of the unhappiest cities in the world.

Academic economists were intrigued by what they saw as a natural experiment in Coase theorem dynamics: with clear property rights and low transaction costs, all of these disputes could be solved in an optimizing manner by payments from one party to another. In principle, an AI system (branded as Coase.ai) could have been deployed to remove human input from these situations, and define a new and improved equilibrium among the parties in dispute. But almost nobody other than the academics thought that was a good idea, because the people involved in the disputes weren't all that interested in an efficient economic equilibrium. They wanted fairness, transparency, apologies and, in some cases, revenge for deeply felt grievances that were much more emotional than material or financial.

A parallel set of issues emerged in some of the largest frontier markets, where the economist Hernando De Soto seized on the new sensor systems as the technological silver bullet for establishing clear property rights in the favelas of São Paulo and the slums around Lagos and Manila. This was supposed to be the route to capital accumulation and economic growth by establishing title and ownership of physical assets such as real estate, making the small plot of land that a family de facto owned a mobilizable de jure asset that could be traded or used as collateral for a loan. The sensor systems succeeded in that particular respect – for example, creating granular maps of property boundaries and usage. But what De Soto had called "The Mystery of Capital" turned out in practice to be more fundamentally a mystery of human emotions. Neighbours who had quietly shared resources for decades now fought bitterly over who "owned" what – and it was about much more than simply the capital: it was about the emotions of winning and losing. Local institutions that were supposed to make use of the newly precise data to help adjudicate disputes were completely overwhelmed.

What happened in Portola Valley and São Paulo began to happen on a much larger scale and with even greater consequences as conflicts arose among countries. It started with border areas such as Aksai Chin, where China and India have argued about the demarcation line for decades. New disputes also arose at the fuzzy border

between Ethiopia and Eritrea, in the occupied territories of the West Bank, at the edges of the Sahel desert and, most intensely, with regards to property and subsurface mineral-rights claims in and around the North Pole as the ice melt progressed. It wasn't possible any longer to avoid fundamental disagreements about who owned what or where a boundary lay, as there was no longer any ambiguity around property rights to soften the dispute.

Now, every such disagreement becomes a direct challenge to sovereign claims, with all of the political and emotional energy that entails. When Japan knows precisely how many years of healthy life are being "stolen" from its citizens by coal-fired electricity plants located inside China … when a city in Texas knows precisely what it costs to provide basic services to undocumented immigrants … and when a city in northern Mexico measures the exact costs of managing pollutants dumped into a subsurface water supply by a factory on the other side of the border … the world of international politics isn't close to being prepared. It seems as if no significant treaty, agreement, contract or deal can survive this kind of scrutiny.

"Plausible deniability" used to be viewed as the scoundrel's last refuge in politics and diplomacy. Many observers expected honesty, accountability and efficiency to be the shape of the future, when fake news was no longer possible because every political ad and every diplomatic message carried with it precise, encrypted and secure metadata that proved exactly where it came from, who said it and when. Those expectations turned out to be as naive as the Portola Valley "smartest city" plan.

The mistake lay in the same assumption about the most important driving forces in human affairs at the macro level. Most of the biggest fights in politics, diplomacy and even business weren't actually about the distribution of economic costs and benefits, and thus they weren't manageable through Coasian bargaining and equilibration. They were about status, prestige and emotional power, resting deep in the collective hypothalamus of humanity.

And so people found a different way to bring a degree of wiggle room back into the management of their affairs. The "solution" to perfect information about the external environment was to insert *imperfect* information about the actors in that environment. In practice, this meant individuals creating for themselves fluid and multiple identities. What, in the 2010s, sounded like a terrible thing (because it was associated primarily with criminals and "identity theft") in the 2020s has become something that many people want – and can access, as long as they can afford it.

The internet and the digital world was the easiest place to do this. It had been that way more or less from the start – as the famous *New Yorker* cartoon, "On the Internet, no one knows you are a dog", so memorably captured. In the 2000s, teenagers in connected countries had become expert in using the internet to do better what teenagers had been doing for a very long time: trying on explicitly different identities for different parts of their lives. In the late 2010s, migrants and refugees, driven across borders by regional conflicts and water shortages, found that having multiple "true" identities was a necessary part of survival. The rise of ethnic nationalism in what were thought to be liberal societies created similar pressures to modify who you were in different settings.

It didn't take long for identity entrepreneurs to recognize that technologies such as biometrics, three-factor authentication and DNA "fingerprints" offered real opportunities for both licit and illicit gain. The human rights community revived the story of Adolfo Kaminsky, a Second World War document forger who saved thousands of lives over the course of his career by making it possible for people to change their identities. So-called Kaminskers began to build a new set of products around the digital equivalent of identity forgery for displaced persons. Using commercial, off-the-shelf technologies such as design software and industrial 3D printers, the Kaminskers created identities that were indistinguishable from government-issued identities – and collected donations from around the world to pay for it. Governments responded by upping the technological ante to proteomic "fingerprints". But this was just the next phase of cat-and-mouse escalation, and within several months the Kaminskers had found a way to synthesize these as well.

In 2025, the market for multiple and fluid identities, both lawful and unlawful, is massive. Intelligence agencies and criminal networks buy large inventories of "burner identities" to be used once then tossed away. Wealthy individuals buy back-up identities to keep as an escape route just in case they need them. And a surprising number of "normal" people in places all around the world are using multiple identities to counteract the downside consequences of hyper-precise data about everything outside of themselves.

A new social lubricant has been found in these fluid identities. These are, in many respects, harder to control and manage than imperfect information about the external environment, simply because identities are so closely attached to human beings and thus intimately reflect some of their deepest fears and desires.

The strange thing is that, while this started as a matter of contracts and agreements, it has now become a matter of philosophical and religious belief for many. Who am I? What is the seat of consciousness or the soul? The digital world surprisingly has now made these questions quite real and concrete for everyone. Walt Whitman's "Song of Myself" is now commonly quoted in societies around the world. "Do I contradict myself? Very well then I contradict myself. (I am large, I contain multitudes.)" is the mantra of the time. But

political and economic institutions have never really grappled with what it means to manage a Whitman-esque reality. Is the “me” who bought a house the same “me” who cast a vote, boarded an aeroplane, opened a bank account or signed a marriage licence? What if the answer is, “partly”? What if the answer doesn’t matter? What if the answer changes from day to day? In 2025, these kinds of questions are only now starting to be framed, much less addressed.

We had to learn the hard way that the drive for transparency through technology wasn’t really about understanding the details of actions; these were just details. It was much more profoundly about trying to understand human *intent*, and that’s where it failed catastrophically. Observers – professional and amateur – armed with precise facts could define and verify all the details they wanted, but this brought them no closer to understanding the deep intentions and true aims of others, or even of themselves.

It was the wiggle room provided by imprecision and uncertainty that had made social life manageable for centuries. People used to look the other way and turn the other cheek when it served larger purposes to ignore a provocation. People used to be able to decide that there were potentially knowable “facts” about sensitive topics – including those related to differences among genders and races – that societies would be better off not knowing, or at least with such precision that actions would have to follow. People used to be able to leak documents, send subtle signals about behaviours and recognize through a smile or a wink that we all understood something without having to say it out loud and actually engage with the consequences.

People can’t do that in the same way any more. Machine-to-machine agreements and contracts are now “perfect” (in the economic sense). When human beings are involved, the issue of identity has become the dominant imperfection – and at the same time, the most important social lubricant in modern society. This means solving the challenge of what a useful level of imprecision about identity is, and what is a manipulative attack by “bad actors”. Nobody yet knows how to answer those questions, because they are at least in part a question of intent.