

43. Complexity versus Simplicity

As natural systems grow, it's normal that they become more complex. In the case of our planet Earth, for example, early in its existence, it had no or little life. The planet's structure developed: an optimal distance from the Sun for sunlight to power life and growth; with a spinning magnetic core inside a spinning planet producing the magnetic field that protects Earth from radiation to make life possible; with land masses and their mountains, plains, coasts and movements; with water systems and their oceans, rivers, lakes and streams; with climate and weather systems, their seasonality, rains and winds.

That's already amazing and complex. Then, life emerged and began evolving: microscopic and cellular beings in waters, air and soils, as life like bacteria, amoebae, viruses and fungi; in more complex beings in waters, like corals, sea plants, fish and shellfish; in plant life on lands, like trees, shrubs, grasses, fruits, vegetables or ferns; and in land-based life, like amphibians, reptiles, mammals, other animals and birds. Earth's web of life is amazingly rich, diverse and complex. We aren't even close to understanding it.

There are maybe millions of species we haven't even recognized yet, in addition to millions we have. Each is unique, and each individual of each species is unique. Higher plants and animals are each complex ecosystems of microscopic life forms, bacteria, cells and viruses, forming structures like organs, networks and shells, to hold the waters and everything else in, and systems to move fluids, convert energy from one form to others, fight infection, grow, regenerate and reproduce.

Together, the planetary systems that support life, systems that make up each of the many life forms, and many interdependent inter-species systems life forms are complex far beyond our understanding. And all of it has atomic and sub-atomic levels of activity of extraordinary complexity. Life is complex, and it increases in complexity as it evolves and inter-relates. Yet, it works, when we don't mess it up. Amazing! As complex as it is, it simply works, and does what it does, even if we don't understand it.

Similarly, human creations are increasing in complexity. We started by using a rock or stick as a tool. We continued developing more complex and specialized tools. We came to use fire for light and heat. We learned to live, communicate and work together to achieve more than we can alone; cultivate, harvest and use plant and other animal life for sustenance and advancement; build structures of increasing complexity; use scientific methods to increase understanding, harness electricity and other forces for energy, and develop an extensive and expanding portfolio of applied technologies; and store, access and share incredible volumes of data, information, communications and entertainments.

Human knowledge and creations are now very complex. It's been a long time since anyone thought it was possible for any "Renaissance man" to know everything, which was never actually possible. Now, we divide labor and specialize, going deep in smaller areas, because even that is already very complex, and, hopefully, we coordinate with others to make it all work as a system. As we do, though, many lose big picture overviews, especially as the focus narrows to how to exploit specialization for material gain. What is it all about? Why are we doing this? How does this fit with the whole? Human creations do not just work automatically without human understanding and cultivation, the way nature does.

It's important for everyone to understand the big picture. To do that, we consolidate or condense complexity into simplicity. We have to be able to overview and work with the summary essence.

For example, it's not necessary for everyone to know everything in the field of medicine to understand the role of a doctor or nurse in society. They try to help us maintain and regain good physical health. Simple. If we can then trust them to do that, to the best of their abilities, for the best possible outcomes for all, without other motivations interfering with that, we can each easily fit that piece into the puzzle, as part of the big picture, and the overall system, and we can relax, know and trust we're collectively doing our best to help us all maintain and regain good physical health. Simple. If the motives are pure, it theoretically just works without each of us who are not doctors and nurses needing to understand it.

However, we increasingly do not do that. We are allowing the complexity behind the specialization to invade our already complex lives and overwhelm us. For example, individual people across all specializations are now being bombarded with pervasive, noisy, confusing and overwhelming print, media and electronic commercial advertisements for pharmaceutical drugs and medical treatments. Why? What purpose does that serve? Advertisement after advertisement are forced into our already overburdened heads about treatments for medical conditions we don't even have, and may never have.

That is unnecessary noise and complexity, and it's actually detrimental to us and the function of society, because it takes our attention with no valuable purpose. It's for-profit businesses bypassing the simple system of trust in doctors to directly influence end users to create product and service demand, so they can increase profits. It only works because they don't bear the external costs of what they're doing. Fair economic treatment would be to charge them at each person's market rate for the time they take from each of us. Quickly, the noise would stop, because that behavior would no longer be profitable.

When we add up all of the advertisements from all of the various sources bombarding us with unhelpful, distracting and stressful noise and interference, 5,000 ads a day in the U.S., we are suffering a lot of lost attention and unnecessary distraction and stress. We're being exposed to unnecessary information and complexity that's detrimental to our individual performances in whatever we do, and to our individual experiences of being living beings trying to enjoy and advance life. There is no point in being exposed to noise and information, unless it's relevant. Otherwise, we drown in it. It's a form of pollution.¹

Billing and payments have become increasingly and dysfunctionally complex. In Denmark, a sick citizen goes to the hospital, provides a national ID number, the doctors and other health care providers are trusted to do their best, they do, the patient gets better, hopefully, goes home and takes the time needed to recover, and then gets back to being a citizen contributor, without ever seeing a bill. Simple.

In the U.S., a sick citizen goes to the hospital, where they pile on as many tests, services and drugs as they can get away with to maximize profits, the patient gets better, maybe, often in spite of the system, and goes back to work, because it's not OK not to work, even if recovering, and before recovered receives hundreds of pages of detailed and incomprehensible bills full of undecipherable codes, that represent costs many times higher than in Denmark.

The bills are usually wrong, almost without exception in the provider's favor; the patient has to spend countless hours trying to understand them, corresponding with the insurance company, arguing with billing departments, going into debt, and may get sick again from the stress, pleasing health care providers with another opportunity to get money. That is unnecessarily and dysfunctionally complex. It is noisy and harmful, and it does not serve us.

Internet and related information and communication technologies industries have created a radical increase in noise and information and a dysfunctional proliferation of technical choices. They've created advantageous, empowering abilities, but they've also increased complexity that increases dysfunction.

Fifty years ago, basically, there were two forms of remote interpersonal communication: the mail and the telephone. Everyone had a mailing address and a phone number, and you could find both in a single information source, the phone book, in which everyone was listed. We trusted the mail service to deliver the mail, and it did. We trusted the phone company to make the phones work, and they did, with 99.999% reliability. We looked someone up in the phone book and sent a letter or called. Simple.

Now, people may have multiple phone numbers, which may or may not be listed in multiple directory services, which we have to search the Internet for, wading through search results and ads people insert between us and that information, and which we may or may not be badly distracted by; people may have multiple email addresses, which we may or may not be able to find, and which they may or may not respond to; and people may be active on any or many social media services, which they may or may not respond to, and we may or may not be able to discover. To communicate with someone, we have to know their personal communication preferences. He only does email. She only answers texts on her unlisted mobile phone, not calls. He only does Facebook. Gotta call her assistant. He's a Twitter guy.

Some businesses don't even have telephone numbers, forcing people to use cumbersome web forms. Each website is its own unique mess, in terms of where to find what, forcing us to fritter away huge amounts of time hunting through marketing blather to try to find a phone number, address or form. Many have proprietary communication platforms for collaborations, which don't work with others, so we have to learn and use multiple technical systems, before we can communicate.

Documents sent in one format cannot be used by another system. Telephone numbers reach only exasperating automated voice response systems, which may or may not ultimately be helpful, after consuming lots of time and energy, through which it may be impossible to reach a human being, and which prevent any interactions that do not exactly fit the often poorly conceived automated systems.

In the end, it's harder than ever to communicate with another person remotely, because we're so frazzled and distracted from being spread over so many communication choices and being buried in communication noise, through whatever channels we do use. When we do connect, we can't communicate effectively, because of epidemic attention deficit disorders that prevent people from being able to focus. Many can't read and comprehend two sentence communications. Truly, our brains are being rewired in this mess to be incapable of concentrated present attention, a disastrous and viciously destructive result that is impairing and harming us and our societies. Dysfunctional complexity.

Now, if we want to buy something to meet a need, there are overwhelming choices. If we want a tooth brush and go to a mega-store for one, there is a twenty-foot-long row of fifty dizzying choices, which would take hours to really analyze, only to find out they're all essentially the same, in spite of different marketing presentations and packaging. How are we served by that? Why do we do that to ourselves?

Increasing complexity is a natural development of growth. But to be functional, whole and efficient, we need to value and strive for simplicity that allows each of us to have big picture understandings of what it all is and how it fits together; we need to reduce the noise; and make it work simply. Otherwise, we

become lost to chaos and destroy our abilities to be present, whole, pay attention and participate.
Simple is good! Slow down! Shut out the noise! Don't get sucked into the vortex!

¹ See *We Can Change Our Wicked Problems!* Chapter on Marketing, Advertising, Selling and PR,
<https://www.wecanchange.us/marketing-advertising-selling-and-p>