

Frequency Design¹

“Because your friends don’t dance and if they don’t dance, they are no friends of mine” – Safety Dance

Introduction

Hai Yu : To discuss the question of the spatiality of society is to discuss the spatialized existence of society in essence....Spatial agency also works, for example, when one recalls old memories at familiar sight. (Shanghai Narrative, Springer, 2023)

In Digital Territory there are no more humans, only information spaces. At a particular moment from a database point of view, you will have more in common with your car than with your neighbor. For some idiot savants a green toothbrush is terribly different from a red toothbrush, a very different thing altogether. (van Kranenburg, Noema, 2007)²

We are in the process of moving from an analogue world to a hybrid one. We must prepare well. Transferring or better said channeling vital energy from one period to another is extremely complex if frequencies are not aligned. When they are aligned the process is simple and hardly experienced by the actors. If the space is well prepared people step in and assume it was always there. Without questioning the mode of being of the space as an essence, as a designed framework of values, it is worn as a well fitting dress, a well fitting glove.

Most people think, and most systems are built on the idea that there is a strong difference between theory and practice, whereas in effect theory has its own domain in epistemology, and praxis has its own domain in phronesis which covers everything from rituals, custom, family knowledge passed on. In fact, this is the case.

¹ Thank you to my friend Ad Mols for putting me on the track of frequencies.

² <https://noemalab.eu/ideas/essay/generic-infrastructures-1/>

Harmony

In the philosophy of Aristotle there are three domains of knowledge with three corresponding states of knowing; Theoria, Techné and Praxis.

Theoria with its domain of knowledge **epistémé**, is for the Greek gods, mortals can never reach this state of knowing. But they can strive for it. In Theoria and epistémé we recognize our concepts theory and epistemology.

In **Techné** with its domain of knowledge **poésis** we find **technology and poetry**. The original meaning of the word 'technology' was concerned with know-how or method. Only with the Great Exhibition of 1851 it becomes attached to machines.

It is therefore all the more interesting that the domain of knowledge that belonged to **Praxis: phronesis** has dropped out completely, not only in our language but also in our thought and ways of thinking. Phronesis³, that knowledge that any one of us uses daily in the practice of living his everyday existence, is no longer recognized as an important domain of knowledge with a modern linguistic equivalent.

For a successful transfer of vital energy to a new ontology frequency design of all three domains of knowing is essential. Frequencies in Theoria, Techne and Praxis must match.

The place to start this transition design is phronesis. At least it has been until now.

It is the belly that disperses energy to both the head (Theoria) and the feet (Techne). The same belly (good or bad elites, aristocracies) that has been always been under attack by 'the people' for not 'working' and not 'contributing', just 'digesting and dispersing', never better described than by Shakespeare in Coriolanus.

And it is interesting that in the above framework we recognize all the terms: theory, epistemology, technology, poesis and practice, but phronesis. In the Dutch and English language, it has no equivalent.

³ This is also the domain of expertise that has been missing in the innovation discourse. Because of the ability to share data rapidly through the internet as browser (exactly twenty (!) years old, 1993) it is this knowledge domain, not the other of 'theory', but the knowledge domain of praxis, that has emerged in the self-organized networks around hardware (Arduino and Raspberry Pi), software (Linux, Processing,...), business opportunities and practices (Meetups, Startup culture, Incubators, Kickstarter, Maker, hacklabs, 3D printing..). When Steve Jobs returned to Apple in 1997 one of the first things he did was closing down the Advanced Research Group saying research needs to be done in the crucible of development. Undoubtedly this has been the basis for the success of Apple.

Phronesis produces every day life carrying decades and centuries of experience where you learn a little everyday. It produces movement, distance (when presence becomes uncomfortable) and dance; movements that look awkward outside its context but make perfect sense once the lines of demarcation are drawn. People instinctively know when these spaces emerge, as the very act of moving makes the space. It also produced intuitive and appropriate ways of decision making. This is a description of the decision making process of the Comanches:

“On the surface, hunting band society was a pure democracy of adult males, who made all the great decisions – peace, war, alliance, migration – around the council fire....Council meetings were a series of speeches or orations.Speeches were rehearsed and never interrupted....Hunter warriors cooperated like a pack of wolves, running behind a crafty leader. Although the council had no means of enforcing its decisions, they were always honored and carried out.....The People’s law was not a complex, rationalized thing, which could be changed by the decisions of emperors, judges, or parliaments at will, at which at times could only be understood fully only by trained elites. The People’s law consisted of their conventional wisdom, accreted by painful experience.”

We know that for a very long time people lived in small groups, ranging from 50 to 150 max:

“Dunbar then compared this prediction with observable group sizes for humans. Beginning with the assumption that the current mean size of the human neocortex had developed about 250,000 years ago, during the [Pleistocene](#), Dunbar searched the anthropological and ethnographical literature for census-like group size information for various hunter–gatherer societies, the closest existing approximations to how anthropology reconstructs the Pleistocene societies. Dunbar noted that the groups fell into three categories—small, medium and large, equivalent to [bands](#), cultural lineage groups and tribes—with respective size ranges of 30–50, 100–200 and 500–2500 members each.^[citation needed]⁴

⁴ https://en.wikipedia.org/wiki/Dunbar%27s_number He also said: “So, if you want to know the secret of a long and happy life, money is not the right answer. Get rid of the takeaway in front of the telly, and bin the hasty sandwich at your desk — the important thing is to take time out with people you know and talk to them over a beer or two, even that bottle of Prosecco if you really must. There’s nothing quite like a convivial evening wrapped around a pint to give you health, happiness and a sense of wellbeing.” <https://www.ft.com/content/c5ce0834-9a64-11e8-9702-5946bae86e6d>

Disappearing Computer

For centuries innovation was incremental, driven by the accumulated experience and attitudes of the tribe. It is important to note that every item, object, and custom was visible, approachable and in principle, adaptable. Until early sensor driven predictive maintenance met a virus like protocol TCP/IP and cheap Cloud. IoT's origin is in the phronesis of the factories. Certain workers had an ear for when a machine would break down. They listened to sounds and they felt the heated machine. When the guys were pensioned off they were replaced by four or five sensors tuned to rhythm, sound, temperature, vibration. That data first was lost until it was stored in Local Area Networks (the edge, it existed all along). Aggregated data of different machines of the same kind led to more insight into its behaviour, early Machine Learning. As more and more machines in factories got connected with the internet storage was needed and around 2000 that Cloud was born. This enabled solid analytics and paved the way for AI. This how IoT, connectivity, and AI were always connected and inscribed in the digital transition from the beginning. As it moved outside the factories into the smart city it created with autonomous driving a story to sell every thing becoming smart. The autonomous vehicle was never about mobility, it was about creating a need for every object surrounding the vehicle to become smart.

But for the first time in the history of mankind we encountered, we facilitated and built a technology that sets forth as it success to disappear in the 'fabric of everyday life' (Mark Weiser, 1991). So instead of a technical apparatus being visible so it can be understood and fixed easily, we now have allowed as a core technology one that is successful in so far as it is invisible and actually hidden so deep and well into everyday life that it becomes synonymous with it.

But of course the results, the data of these processes are visible to some, to those to whom, so to speak, it does report.

So Techne hid in phronesis.

The Disappearing computer became the smartphone that looks like personal device. People treat it like a dear friend. As I watch out of my window nearly everyone is either holding it in their hands or are talking into it. My precious.

Techne hid in phronesis and actually took it over.

Why?

In my dreams I can think of no other reason than this. If there is a ship out there, it needs to dock somehow. It has to create an opening that understands to them no doubt primitive connectivity.

There is a tendency to think that we are going forward, going towards situations yet to be formed and discovered. This is governed by a teleology that is at odds with the way we seem to immerse ourselves in digital connectivity. You'd think we respond intuitively to something lost in the first place; our being grounded while being mobile, our being at home in various places and locations, our sense of ubiquity, of the ubiquity of signs and modes of experience that seems ever more natural, more human.

The swiftness and speed of the communicative response to the digital, what can it be but the sensual recognition of our intrinsic abilities to experience thought and alchemistic (read: growth and change) processes directly and intuitively? Let us suggest for a moment that we are going backwards, an interesting proposition, that as it calls for a moratorium on moving towards defies the very idea of closure, as it calls for a moratorium on the making of things defies the very idea of process as a generic concept, as it calls for a moratorium on going forward defies the very idea of teleology.

*We are going backwards. We are recreating through what we perceive as technological devices our modes of experiencing communicative connectivities in various modes of intelligence.*⁵

Harmony is designing friction, designing frequencies

We literally have an opportunity to move away from the infested territory we are in now and built new protocols and move away from tcp-ip and html, as well as from the US Hyperscalers that have squatted from the beginning a space that was never theirs to begin with.

6G is expected to be deployed in 2030.

It should and cannot be a simple 5G update carrying the current problems of inequality, shareholder value as the only measure of success, super empowered individuals, purposeless use cases, architectures built with only one intelligence (engineers). People should resonate with these spaces, not download a movie one thousand times faster or do hologram communication. Swarm robotics can also be done with 5G.

⁵Real Rules of Innovation for the 21st Century (Part 3). Rob van Kranenburg 15 May 2004. <https://noemalab.eu/ideas/essay/real-rules-of-innovation-for-the-21st-century-part-3/>

As 5G brought IoT into the networks, 6G will bring AI into the networks. It is a different ontology that needs new protocols on all levels.

We have 5 years to bring 6G harmony through designing and recognizing the frequencies of

- **Theoria – epistème**
- **Techné – poësis**
- **Praxis - phronesis**

That is the long term vision, the technological tools and the everyday practices. People are still simple creatures. We eat and go to the toilet. We get sick and need to heal. We are born and we die. We need deep acceptance of these practices as humans, in the same way as we need to understand that we will change as a species and may get new capabilities. These makes us still human. These capabilities should be dispersed over all humans and should be deeply aligned throughout the three layers.

The frequencies need to resonate. As they resonate through our bodies, surroundings and minds we and the machines experience a sense of logic, as how things should be, in harmony.

Concretely

We ⁶created a sworking group space: A Technical Reference Architecture Framework⁷ for an Open 6G Device Ecosystem. Industry Connections Activity Initiation Document (ICAID) IC25-009-01

Daily use of citizens through a preferred 6G device with its own open-source search, shopping, friends, and messaging services will create a relatively stable sovereign ecosystem on the communication and data layer. The architecture could use this consumer device to spill over into Industrial Policy as an IoT (Internet of Things) Gateway. This could benefit Europe, China, Africa, South America, USA, India in the sense that

⁶ Rob van Kranenburg initiated the ICAID. He is Secretary. Sebastian Frey is the Chair.

⁷ New instruments of governance for our societies, Gluhak and van Kranenburg

[https://ieeexplore.ieee.org/document/6197476\(2012\)](https://ieeexplore.ieee.org/document/6197476(2012))

Statecraft and Policymaking in the Age of Digital Twins. Digital Democracy and the Internet of Things (Springer Brief in Political Science, March 2025, van Kranenburg

<https://link.springer.com/book/10.1007/978-3-031-80645-2>

The Internet of People for a Post-Oil World, 2011 by Christian Nold, Rob van Kranenburg

<https://www.amazon.com/-/es/Christian-Nold/dp/0980099471>

6G-IA White Paper: What societal values will 6G address? -Societal Key Values and Key Value Indicators analyzed through 6G use cases

<https://6g4society.eu/>

different regions can either build their own 6G device or develop jointly. This is especially true for the latter as the India Stack is a strong concept to build on. (<https://indiastack.org/>)

Global companies working in different locations toward 6G, such as Huawei, Nokia and NEC, Bosch, Siemens, Airbus, Vodafone, Nokia Bell Labs, Ericsson and Huawei Technologies, Metaverse player, the African Fintech sector.

Proposed Deliverables

- White paper: A Reference Architecture that describes what is needed to create an open 6G device.

The capabilities of 6G are an enhancement in connectivity that can be described as more than incremental steps from 5G. Currently, there are industrial use cases. There is no use case that addresses citizens. This is precisely the point of the open 6G device. This is a possibility to improve people's lives. Revenue stays inside the ecosystem.

- A Proposal for standards to support the Reference Architecture.
- Workshops and Webinars: Activities to support the recognition and adoption of the Reference Architecture.

Ideally, but this is my personal conviction, an interoperable framework for a 6G phone – incorporating the latest quantum security in hw and sw, a new app store excluding US Hyper scalars, a full supply chain secure digital wallet, educating people into Self Sovereign Identity, and creating an ecosystem of value for all, making sure that revenue and profit goes back into the system in which people are paying taxes.

People are real participants and as such they will want to contribute as they know they will receive a lot in return. People have gotten so used to their resources. But none of them can be taking for granted. Leaders made this luxury space possible. Now they must do so again.