Small Tech, High Touch: A Permutation

V. Christianto, Florentin Smarandache

Abstract

In an earlier paper published in this journal (IJNS), we discussed a new approach to technology, which may be called as 'opti-realism' or 'pess-optimism' as alternative to utopianism based on technocracy, which may lead the world into global techno-totalitarianism. In this article, we submit a new approach to Nature and technology, which is more modest and humble, rather than a techno-utopianism version of reality that most futurists argue for. Our proposed approach resembles more to Myer-Briggs 16 types of personality, including IJNS, IFNS etc. In our scheme, there are 8 characters of approach toward technology which can lead to many variations or we call it 'Permutation." Of course, if the readers ask one variation that we prefer, we would answer: *Small Tech, High Touch.*

Introduction

In line with the rapid development of new branch of foundational mathematics, i.e. Neutrosophic Logic, in an earlier paper we discuss potential application of NL theory in the field of futurology [9]. See for recent papers on NL: [10-13].

In this context, about two decades ago, John Naisbitt - a prominent futurologist - published his book *High Tech, High Touch* (1). After that, there were many publications and research on efforts to apply the high tech and high touch concepts, for example in the field of customer service and hospitality, see for example (2).

If Naisbitt's thesis on high tech and high touch is looked for as an opponent, we will encounter: low tech and low touch. Are there perhaps areas where low tech and low touch are still relevant?

On the other spectrum, the convergence of technology and also ecological / environmental considerations, leads us to two other possibilities: small tech and also tech wise, the opposites of which are big tech and unwise tech. Of course, it is quite clear that the right technology sometimes does not need to be large and sophisticated, sometimes simple technology such as a small gas stove, is sufficient for household use in rural areas.

Our proposed approach resembles more to Myer-Briggs's 16 types of personality, including IJNS, IFNS etc.[1] In our scheme, there are 8 characters of approach toward technology which can lead to many variations or we call it 'Permutation."

Permutation

Without pretending to debate this topic at length, let's do a simple permutation game. For example:

A0 = low tech

A1 = high tech

B0 = low touch

B1 = high touch

C0 = small tech

C1 = big tech

D0 = wise tech

D1 = unwise tech

So we now have 8 traits of approach in technology. Of course it becomes simpler if Naisbitt's simple thesis: high tech and high touch is denoted as A1-B1.

Then we now permutate the possible combinations:

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[1] Added note: As an alternative to Myer-Briggs's personality types, FS has developed his own Neutropsychology scheme. In psychology, he introduces: <u>Neutropsychic Personality</u> that is a neutrosophic dynamic open psychological system of tendencies to feel, think, and act specific to each individual.
<u>Neutrosophic Refined Memory</u>: that restructured the division of memory into: *consciousness*, *aconsciousness* (which we introduce as a blend of *consciousness* and *unconsciousness*), and *unconsciousness*. *Aconscious* was further subdivided into *preconscious, subconscious, semiconscious = semiunconscious, subunconscious,* and *preunconscious*. All memories have degrees of conscious (c), aconscious (a), and unconscious (u).
Refined Neutrosophic antiTrait –Trait Diagram, that each individual has a *degree of antiTrait* and a *degree of Trait* with respect to each antiTrait-Trait personality pair.
And the *Neutrosophic Temperament*. Interested readers are advised to consult [14].

a. A0-B0

b. A1-B0

c. A0-B1

d. A1-B1

e. A0-C0

f. A1-C1

g. A0-D0

h. A0-D1

And so on. We can continue this permutation into a combination of 3 and a combination of 4 parameters, for example: A0-B1-C0-D0, and so on.

Implication: Situational technology

Personally, these writers are more inclined towards appropriate technology. For example in the development of renewable energy, in a previous article, the author has mentioned the term ART (a*ppropriate renewable technology*). In the spectrum of possibilities above, ART can be classified into: C0-D0, but can also be combined with A0 / A1 or B0 / B1.

But of course this choice needs to consider the context or situation and location in which we must apply the technology.

If it is possible to use the analogy of situational leadership (situational leadership), perhaps this approach can be called: situational technology choice (STC). Or those who prefer to use context terms, can use phrases: technology in context.

Application

Sounds a little abstract?

Let us consider one of the problems, namely distance learning in this pandemic situation (context).

Perhaps a high tech and high touch solution is to provide multimedia Internet-based education services so that students do not need to go to school (combination A1-B1). But maybe this solution is only suitable in urban areas where students are accustomed to using gadgets with mobile internet networks available throughout the city.

But what about small towns or rural areas where 3G / 4G networks are still difficult to reach?

Maybe we need to think about a solution with a different combination, for example A0-C0-D0 (*low tech, small tech, wise tech*). Is there a solution?

Several possibilities that might be considered:

a. Radio over IP, as once popularized by Prof. Onno W. Purbo several years ago (see his books). The latest developments, if I'm not mistaken, are DMR (digital mobile radio) and IP Simulcast.

b. School-based radio channel: perhaps small-town schools could consider collaborating with a local radio station. Because radio infrastructure is more affordable, with a good schedule, the teaching process can be done via radio, perhaps a term that can be popularized: "raducation." (education based on radio)

c. Another possibility, for example for more remote areas, is to develop a community radio, or community-based radio channel. It seems a little difficult, considering remote areas also have difficulties in technical personnel, but at least this is one possibility (6-7).

Science, *techne* and dialogical communication

Now let us put the aforementioned discussions on technological choices and approach to nature into a more philosophical perspective.

It is known that there are natural sciences, social sciences, and emancipative sciences etc. The main distinction between natural sciences and social sciences is mostly about what and whom to control: in natural sciences, a scientist tries to control nature through comprehension of certain aspects of nature (8), which then they be reduced into some kind of laws of nature. In social

sciences, a scientist tries to achieve more understanding (*verstehen*[2]) of certain people or society, in order to properly do dialogue with that society/people. Therefore, it is wrong if a social scientist tries to "control" the society in question as his/her goals, because human beings should not be an object of control, but a partner of dialogue.

Many problems that we found in society come from two chief misapplied sciences: natural sciences which becomes "techne"[3] or technology, which not only aiming to control Nature, animals and so on, but also control people and society. And also, social sciences which work in wrong way to not do dialogical communication to achieve goals as community, but to control each other.

What is distinction between *techne* and episteme?

> "…some of the features of this contemporary distinction between theory and practice are not found in the relation between *epistêmê* and *technê*. Others are found in a somewhat refracted fashion. As we move chronologically from Xenophon to Plotinus, we go from an author who does not distinguish between the two terms, to an author who has little use for *technê* because it is so far from what he considers to be real. It is in Aristotle that we find the basis for something like the modern opposition between *epistêmê* as pure theory and *technê* as practice. Yet even Aristotle refers to *technê* or craft as itself also *epistêmê* or knowledge because it is a practice grounded in an 'account' — something involving theoretical understanding. Plato — whose theory of forms seems an arch example of pure theoretical knowledge — nevertheless is fascinated by the idea of a kind of *technê* that is informed by knowledge of forms. In the *Republic* this knowledge is the indispensable basis for the philosophers' craft of ruling in the city. Picking up another theme in Plato's dialogues, the Stoics develop the idea that virtue is a kind of *technê* or craft of life, one that is based on an understanding of the universe. The relation, then, between *epistêmê* and *technê* in ancient philosophy offers an interesting contrast with our own notions about theory (pure knowledge) and (experience-based) practice. There is an intimate positive relationship between *epistêmê* and *technê*, as well as a fundamental contrast."[4]

To these wrong applications of science, which often happen because of either socialism or capitalism, then comes a third possibility: emancipative sciences, which are aiming to liberation to the aforementioned "techne" stronghold.

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[2] https://medium.com/@umfarooq0/verstehen-max-weber-and-an-approach-to-social-sciences-f95ad578aa9b
[3] https://plato.stanford.edu/entries/episteme-techne/
[4] https://plato.stanford.edu/entries/episteme-techne/

In this sense, small tech-high touch can be viewed as one way to counter the pragmatic-hegemonic practices of techno-utopianism, especially with the high tech, big tech approach.

That is our perspective, which may be influenced by Buddhism economics thinking of EF Schumacher, along with dialogical philosophy of Martin Buber.

Concluding remarks

Thus, a few simple thoughts may be useful for educators and also schools that will start the teaching and learning process in the new academic year. In this paper the technical aspects are deliberately not discussed, because this requires separate considerations.

In this article, we submit a new approach to Nature and technology, which is more modest and humble, rather than a techno-utopianism version of reality that most futurists argue for. Our proposed approach resembles more to Myer-Briggs 16 types of personality, including IJNS, IFNS etc. In our scheme, there are 8 characters of approach toward technology which can lead to many variations or we call it 'Permutation."

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