

Walden Pond

p2-Domes

21 minutes

"Saxton T. Pope (said of Ishi) This article was prepared a year after publication of Domebook 2, reflecting then, as now, our changing views and evolution of thoughts on shelter."

p29-Big data meets Big Brother as China moves to rate its citizens

18 minutes

"On June 14, 2014, the State Council of China published an ominous-sounding document called "Planning Outline for the Construction of a Social Credit System". In the way of Chinese policy documents, it was a lengthy and rather dry affair, but it contained a radical idea."

p42-I asked my students to turn in their cell phones and write about living without them

10 minutes

"A few years ago, I performed an experiment in a philosophy class I was teaching. My students had failed a midterm test rather badly. I had a hunch that their pervasive use of cell phones and laptops in class was partly responsible. So I asked them what they thought had gone wrong."

p50-The second sage

15 minutes

"A man is hiking in the countryside when he suddenly sees a toddler about to fall into an abandoned well. What will he do? Many people will instinctively run toward the toddler to save him. However, some people will simply panic, freezing in the moment of crisis."

DOMES

* shelterpub.com * 21 minute read *



"He looked upon us as sophisticated children – smart but not wise."

Saxton T. Pope
(said of Ishi)

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"Those who cannot remember the past are doomed to repeat it."

— George Santayana
1863-1952

Metaphorically, our work on domes now appears to us to have been smart: mathematics, computers, new materials, plastics. Yet reevaluation of our actual building experiments, publications, and feedback from others leads us to emphasize that there continue to be many unsolved problems with dome homes. Difficulties in making the curved shapes livable, short lives of modern materials, and as-yet-unsolved detail and weatherproofing problems.

We now realize that there will be no wondrous new solution to housing, that our work, though perhaps smart, was by no means wise. In the past year, we have discovered that there is far more to learn from wisdom of the past: from structures shaped by imagination, not mathematics, and built of materials appearing naturally on the earth, than from any further extension of whiteman technoplastic prowess.

In May, 1972, about a year after we published *Domebook 2*, I received an invitation to participate in a conference at MIT Responsive Housebuilding Technology. Out of curiosity I decided to go, not thinking too much about the fact that I'd been invited as the editor of the *Domebook*, and that since that time I'd more or less given up on domes and was disillusioned with new materials and high technology as applied to building. I decided to bring along slides and videotapes of house building in Northern California: shacks, driftwood buildings, interviews with real builders, and on video, the contrast between a crane dropping in a prefab and 25 men picking up and moving a small building: Machine vs. human energy.

So my son Peter and I took off for Cambridge. Our first helicopter ride, from Sausalito, smelly exhaust, a dreadful machine, to the SF airport. Then in a 747, five hours to cross the country! The huge jet was not 1/5th full, a terrible waste of fuel. When I went into the bathroom, the finely built one piece aluminum washbasin and toilet

stand gave me an insight into Buckminster Fuller's ideas of housing. Since Bucky has been constantly traveling now for many years, he spends an enormous amount of time in planes. He has always loved machines and metal (see the Phantom Captain chapter in *Nine Chains to the Moon*) and his fascination with air flight and aerospace technology lead him to dig aluminum efficiency such as the 747 in-flight bathroom Bucky and many others (see Le Corbusier: *Towards a New Architecture*) think of houses as machines. Probably because machines were just beginning to demonstrate their remarkable clanking capabilities when Bucky and Le Corbusier were at impressionable ages, their image is of houses being mass-produced, standardized, and now computerized. But I'm getting ahead of myself.

Robot Architect

The conference turned out to contain some ideas of architecture which made me gasp. Even though MIT has published some excellent books on native structures, the dominant theme (ironically) of

Responsive Housebuilding
Technology was computerized plastic flash. Right around the corner from the conference room there was a large computer being worked on by students, staff and others. It's in its own suite of rooms, with homey looking exposed wires running between machines, plexiglas panels so you can see the electronic wizardry, and rock and roll on the radio.

The computer is called "The Architecture Machine" and its creators seek to build an intelligent machine, one that they can have a dialogue with. Robot architect. It took me few days to figure out what the machine could do, and was being trained to do, but here it is, and realize dear reader, that this is architecture at a leading American university, and that the project is well funded, and well respected:

Meet the robot architect and its functions (with code names):

SEEK is a mechanical device hooked into the computer that will pick up, stack and rearrange cubical blocks on command from the computer. In a museum exhibition two years ago, the machine, which can handle 300

cubes, and a colony of 60 hamsters were put together. The idea was to have the computer stack the blocks in a way the hamsters liked. The hamsters tended to knock over the blocks, running in and out (looking for their natural environment, but this was overlooked by the researchers) and SEEK was to figure out which way the hamsters liked the blocks stacked, and arrange them in that manner. Apparently what happened was the hamsters didn't like any way the machine stacked blocks, they didn't like the blocks, they didn't like being in the museum, and they just knocked blocks over. But the idea of it all, in the words of one of the computer team "...If this idea was carried out in a peopled world, perhaps a giant SEEK could sense the behavior and actions of its people and provide a responsive, useful and friendly living space, better than what now exists ..."

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characteristics.” A series of photocells will sense the silhouette of passers-through the door and will compare it with a dictionary of well-known silhouettes and say “Hello Richard,” or whatever, as you pass through. The voice part of the computer is called SPEAKEASY.

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Now, also hanging around at MIT are pneumatic structure designers. Air buildings have been used at fairs, exhibitions, ice rinks, and now the technology is well enough along so that architects are able to construct them. Artists started out several years ago with polyethylene, and some designers made nice enough looking structures so that now plastic manufacturers, schools,

etc. are interested. They appeal to the consumer-oriented US public, as they are even newer than domes, and are flashier media architecture.

This computer/airbuilding/plastics thing that seemed to be on so many of these architects’ minds jarred me, as it seemed roughly parallel with a logical extension of some assumptions I’d made 3-4 years earlier on the idea of housebuilding technology. The assumption, encouraged for a time in my mind by Bucky Fuller, was that we will have to depend upon new technologies, new materials, new designs to solve the housing crisis on an overpopulated earth.

Some scant background: Looking for new solutions to making family sized houses led me into building and helping others with a good number of geodesic domes, We were inspired, we had a vision, and we were in a hurry—we had people waiting for a roof over their heads. We tried every material we could get cheap enough wood, plywood, cardboard, sheet metal, aluminum; fiberglass/Veetra cloth/polypropylene/all manner of horrid chemical-

caulks/vinyl/polyethylene/plexiglas/Lexan/ABS plastic/steel and on and on.

At this time I was intrigued with the space program, video, computer art, the Moog synthesizer—and I decided we would try any hi-tech application we could get our hands on. Our work at Pacific High School, as described in Domebook 2, was exploring materials. We stuck to geodesic geometry as it was simple and gave us a rather neutral framework to work with in each case. Our main work, often missed by people thinking of the dome work in architectural terms, was in the realm of materials. With each material, the builders there tried to create as aesthetically pleasing a space as possible.

In all this work, we tried just about any plastic we could obtain. What I found out is that compared to the publicity by oil/chemical/plastic industry, plastics are going to have a very limited application in housing of the future.

While plastics have certain limited building applications (such as plastic sewer pipe, which an

amateur can assemble), it is highly unlikely that the use of oil/chemical derived materials will ever be of significant use as structural or cladding construction, for these reasons:

Plastics Have Short Lives

First, there are practical disadvantages to the use of plastics in building. They are extremely expensive compared to conventional building materials. This has caused me to think that the cost of a material is roughly proportionate to the ecological damage done to the earth in removing and refining it. To find, for example, a plastic material that will resist sunlight without cracking is extremely difficult, or expensive, or both. There are virtually no plastics developed that are cheap and durable enough to cover buildings on any scale. I recently went back to look over the 17 domes we built at Pacific High School, so these observations are based on experience plastic foam gets easily damaged if not coated with something hard, and to coat it with something hard is expensive; it gets

knicked and gouged very soon. It also turns an ugly oily brown color if not painted.

Polyurethane foam is said not to burn by foam salesmen, and it is true that it doesn't catch fire easily. But it is also true that once it does catch fire, it explodes like gasoline and releases poisonous cyanide gas. I've concluded that foam is strictly an insulation material, and even then to be avoided if possible due to cost, fire danger, pollution in its manufacture, and Poison danger to the applicator.

We used vinyl for windows and in some cases to cover entire domes. After living and working with it for a few years I have become repelled by the material. It never loses its objectionable smell, it attracts and collects dust and although at first you think it is clear, after a while you realize that you are looking at trees and stars through a film of chemically rearranged oil. Vinyl continually loses molecules from its plasticizer, which accounts for the film you see on auto windshields—from vinyl seat covers. In Viet Nam some GI's died from blood transfusions from vinyl bottles. This

molecular migration probably also works subtly on your nervous system.

Fiberglass does a lot of things other plastics can't, but I don't like to work with it smells, has itchy glass fibers. Though it looks O.K. on surfboards, it is hard, shiny, unattractive to me as a building surface. We had some spectacularly bad results trusting in caulk. Of course our 16-year old workmanship at Pacific High School was not that accurate, but even with super fitting, we were trusting too much in claims of manufacturers and salesmen. After working with every possible kind of plastic clear or semi-clear window material, I've rediscovered glass. It is true that plexiglas doesn't break and is easier to cut, but it scratches easily and permanently, attracts dust and dirt, and just never has the sparkling clear, image-transmitting capabilities of glass.

Secondly, here are some personal aesthetic discoveries I've made in spending a few years around various plastic materials (I'd lived previously with more conventional materials such as wood, concrete,

glass, brick, etc.) I've found that the less molecular rearranging a material has undergone, the better it feels to be around. Wood, rock, adobe as compared with polyurethane foam and polycarbonate resin windows.

Oil or Wood

It occurred to me lately that there is a profound difference between the way wood and rock are produced, and the way plastic foam and flexible vinyl windows are manufactured. Consider that a tree is rendered into "building material" by the sun, with a beautiful arrangement of minerals, water, and air into a good smelling, strong, durable building material.

Moreover, trees look good as they grow, they help purify air, provide shade, nuts to squirrels, and colors and textures on the landscape. And wood is the only building material we can regenerate. On the other hand, most plastics are derived by pumping nonrenewable oil from the earth, burning/ refining/ mixing it, with noxious fumes and poison in the rivers and ocean, etc. Of course, saw mills and lumber companies rip stuff up with gasoline motors and

saws, and smoke fumes, but it strikes me that the entire process of wood growing and cutting is preferable to the plastics production process. What is called for is tree-respecting forest management.

However, there are obviously many people who feel comfortable with items such as Tang, pink plastic hair curlers and the disposable dishes on airplanes. Discover your ideals as you take your choice.

I tend to feel uncomfortable around any oil-derived or highly processed plastic material. Polyurethane foam seem as if it would be better than the others, but it, too, turns out to be ugly.

In addition to the practical and aesthetic disadvantages I've found in plastics there is the idea that one is dealing with Dow, and the oil industry—that is the people Nixon worked for.

I'm still not afraid to use plastics, I just have a far more realistic picture of what they can do. It turns out, after several years of varied experimentation that plastics can't stand the weather, or if they can they're extremely expensive.

The foam builder tells us foam can be shredded up into mulch. Sure, I reply, it's a good mulch, but it stays in the soil, and after you keep mulching with it, your soil becomes more and more plastic and less and less dirt. Pretty soon you can raise plastic flowers!

After the MIT conference, Peter and I drove out to Cape Cod, spent Friday night in an old inn. It was a beautifully built 100 year old wood building with an elliptical spiral staircase said to have been built by an itinerant carpenter who built three such staircases on the cape. Next to the inn was a large barn which was being converted into an art gallery. I had a drink with the owner in the inn's small bar and we started talking about buildings. I asked about the barn, and he said, "Do you want to see it tonight?" "Sure."

We walked into the large building in the darkness, and then he switched on the lights. It was about the most dramatic way to see a beautiful old building, the sudden blaze of lights revealed a 100 year old mortise and tenon structure. There were about four loft-levels, and at the top was a

hexagonal cupola. The inn's owner sensed something was going on with me in the barn, so he went back to the inn, telling me to stay there as long as I liked. I climbed up all the ladders, up all the stairs, looking at the joinery (wooden pegs.) Then up into the little cupola room which was above the roof line, smoked a joint, sat and looked out over miles of countryside in moonlight. To the north, the water. Sitting there, 50 feet high, supported by hundred year old wooden structure, the futuristic plastic building notions seemed strange indeed.

Machine Birth

The pilgrims actually landed in Provincetown, before Plymouth. One of the first things they did, according to folks in Provincetown, was to steal the Indians' corn crop. I wish I knew more history. Where did this western technology start? Was it due to metals? Machines? Electricity? Resources? What started this thing that led to death of American Indians, much wildlife and forest, massive alteration of air, water and topography? What was the spirit that invaded this

continent, machined its way to the Pacific Coast, then eventually got a stranglehold on most of the planet?

I sent an early draft of this writing to Bob Easton; here's part of his reply:

- Science: got started by people studying the stars and biology for healing purposes. Certain principles of mechanics grew out of observing nature: stars, trees, animals. Leonardo. Newton. Etc.
- The New World: Stories of fabulous riches in the East moved western man to explore and hoard
 - the development of consolidated power by the developing “nations” of Europe created this awareness of the Roman experience, of super abundance, superpower—lust for more riches, hoarding, super tribes competing for dominance by the ultimate in power display
 - the greatest accumulation of useless gems, gold. Ferdinand and Isabella. Henry VIII. The new world exploration breeds technology, better equipment to transport. Worship of material objects creates subsystem of technique necessary to masturbate this outrageous lust.
- Slavery: The human slave was considered a machine by Romans, Greeks. European man in his exploitation of the New World riches could condone slavery abroad—possibly the church in its traditions dating back to Roman days would not allow slavery within Europe. The slave “machine” was profitable because it bred, needed cheap fuel, basically looked after itself, wasn’t paid; is the “robot” of the futurists ...
- Slavery Ends: Outrage over conditions slaves are subjected to is voiced by humanists and artists of the 16th and 17th centuries—a new class—people who have moved thru the arrogance of accumulated objects into new levels of consciousness. These people bring tremendous pressure on the merchant/power/military class first in England, then the US, because they are of a higher class within the social hierarchy of the society...the children of the

leaders (Dickens, Swift.) The pressure builds to end slavery—panic—the old order must change. The newly growing technical class is pressed by merchant leaders—possibly unconsciously—or perhaps independent innovators within the merchant class rise to meet the challenge—certainly within the circles of power and technique the fears were voiced. The biology scientist becomes the gross engineer.

– The Answer: Watt develops the artificial heart, the steam engine, and the others all follow: machines analogous to the rest of the body, including the greatest of all, electricity, the machine equivalent to the life force itself. The answer is the mechanical/electrical slave, the great source of wealth that western man created all by himself. No other culture developed this. China's war lords made gunpowder, etc., but is nothing compared to the incredible competitiveness of the fierce western white tribes. The new idea pioneered in America is

now every man can have slaves—cars, labor saving devices, etc., plus the power high gotten off using power tools—the same high gotten off using slaves, basic to the small human ego, which is so susceptible to extending its range of influence and power.

– However, the consumer-people of the western world are but children soon to be cast out of the warm cradle, because the monster slave has begun to die off: the young of today are instinctively cutting off its regeneration. The costs of using its services will soon begin a very rapid rise because of scarcity. The cost of gasoline, electricity, plastics will rise so they can only be bought by the industrialists to maintain their power. As the unions hoard the skilled jobs and knowledge, their power and wealth will die with them. As the medical professions develop more artificial drugs, the viruses will continue to grow more sophisticated to overcome those drugs and will kill off those who contact those germs/ viruses; since viruses only attack dead

cells within the body, the ill-fed people/consumers will be susceptible to disease.

The next main stream culture will be made of the artists and humanists of today's subculture. Why? There may be no alternative. It appears now that the ultimate tool of the techno-fantasy people, the computer, says to turn itself off. (See *World Dynamics*, by Jay W. Forrester, Wright-Allen Press, 1971.)

Why not listen to Bernard Maybeck who wrote:

"The artist suspects it is not the object nor the likeness of the object he is working for, but a particle of life behind the visible. Here he comes face to face with the real things of life; no assistance can be given him; he cannot hire a boy in gold buttons to open the door to the Muse (our italics), nor a clerk or accountant to do the drudgery. He is alone with his problem and drifts away from superficial portrayals. After this he strives to find the spiritual meaning of things ..."

Above quote from booklet: *The Palace of Fine Arts and Lagoon*, by Bernard Maybeck, Paul Elder, 1915;

quoted in *Five California Architects* by Esther McCov. Reinhold Publishing, 1960.

Man?

Now back to MIT. The computer people at MIT and the air building people have collaborated in various architectural visions. Example: an air building controlled by computer which recognizes people when they come in; and when say 60 people get into the building, the computer unrolls and blows up another plastic section to accommodate more people. The occupants have control over windows, for example —they can make windows appear or disappear. Computer allows occupants to change shape of building at will. "Hal, will you set the table for eight tonight?"

Another idea that's been around for a while, that came up at MIT: architect draws on cathode tube with magnetic pencil; design for a foam house is fed into computer. Computer operates a foam truck with barrels of foam, boom, and extruding device. The truck boom manipulates around, extruding

walls of the house. The house is built with no human hands touching it.

Wait! at this point, the last day of the conference, I started yelling. (Sym van der Ryn had been arguing with them earlier.)

"This is an architectural conference, there are no people here, just professionals playing academic futuristic games. No women, kids, men here to react to your ideas, academic insularity. Moreover, you designers, especially the ones with artistic abilities, are making plastics and a totally impractical and weird shelter outlook appear seductively appealing to those folks who are always looking for something new and flashy. Spacy air buildings are deceptive, that's all. No one is ever going to really live that way, but it's good media. The same thing I learned with domes, they photograph well."

The planet needs nonpolluting energy sources. Solar heat, wind electricity, methane from compost. Revive waterwheels; sawmills in New Hampshire were driven by water power. Put 2/3rds of the staff at MIT on developing clean(er)

burning motor vehicles! Create a mind bank with the Architecture Machine and come up with a solution to internal combustion before the Chinese have two cars per family! If successful you will be national heroes upon graduation, and receive free nonpolluting cars the rest of your natural lives.

Architects, use your skills and desirable positions to assist in current housing problems. Help people! You don't have to find a gigantic new solution to housing. The answer may be in our hands. Whisk Whisk Whisk, the sound of 100,000 Chinese brooms sweeping snow off Peking streets. No snowplows. The excreta of Peking collected and used for fertilizer. No sewage problem.

MIT, architecture schools, have you ever considered that in some cases, designs get about as good as they're going to get, and then don't improve for millions of years. Look at our hand! Is there a need to redesign it? Have architects, builders ever considered that our grandparents, but more specially the Indians, built far more sensibly than today's building industry? And that maybe

looking for new structures and new materials isn't that important right now? that you can't think about building, or design unless you consider the lifestyle? And that the extravagant use of resources in the US now can't last, and is in fact maintained at the expense of subjugated, bombed, exploited third world people everywhere?

I was particularly disturbed by the vision of the architect sitting at the cathode tube, drawing his design into the computer, the computer causing the foam truck to build the house. The ultimate in laziness, machine worship. Machine can do anything better than man if we develop machine enough, is the premise. Wrong! It's going to look horrible—guaranteed—it's going to cost too much, it's going to be ecologically unsound, it will only produce environments that machines or machine-like people will want to inhabit.

John Ryckman of Montreal sent us a photo of a Thai man weaving a rainproof head shield with the following comment:

He never heard of “great circle theory”—doesn't know geodesics from A,B,C,—and thinks Buckminster Fuller is nothing but a smooth-talking evil spirit!

So, there's a lot of trickery and hype afoot, I ran into a good deal of it and wish to pass along my disillusionments for the edification of those who won't therefore have to go through the same trial and error (much error!) process.

Buckminster Fuller's description of man (from chapter, The Phantom Captain, Nine Chains to the Moon): Man?

A self balancing 28-jointed adapter-base biped; an electrochemical reduction plant, integral with segregated stowages of special energy extracts in storage batteries, for subsequent actuation of thousands of hydraulic and pneumatic pumps, with motors attached; 62,000 miles of capillaries; millions of warning signals, railroad and conveyor systems; crushers and cranes …

Hand-Owner-Self Built

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Polyurethane foam is said not to burn by foam salesmen, and it is true that it doesn't catch fire easily. But it is also true that once it does catch fire, it explodes like gasoline and releases poisonous cyanide gas. I've concluded that foam is strictly an insulation material, and even then to be avoided if possible due to cost, fire danger, pollution in its manufacture, and Poison danger to the applicator.

We used vinyl for windows and in some cases to cover entire domes. After living and working with it for

a few years I have become repelled by the material. It never loses its objectionable smell, it attracts and collects dust and although at first you think it is clear, after a while you realize that you are looking at trees and stars through a film of chemically rearranged oil. Vinyl continually loses molecules from its plasticizer, which accounts for the film you see on auto windshields—from vinyl seat covers. In Viet Nam some GI's died from blood transfusions from vinyl bottles. This molecular migration probably also works subtly on your nervous system.

Fiberglass does a lot of things other plastics can't, but I don't like to work with it smells, has itchy glass fibers. Though it looks O.K. on surfboards, it is hard, shiny, unattractive to me as a building surface. We had some spectacularly bad results trusting in caulks. Of course our 16-year old workmanship at Pacific High School was not that accurate, but even with super fitting, we were trusting too much in claims of manufacturers and salesmen. After working with every possible kind of plastic clear or semi-clear window material, I've

rediscovered glass. It is true that plexiglas doesn't break and is easier to cut, but it scratches easily and permanently, attracts dust and dirt, and just never has the sparkling clear, image-transmitting capabilities of glass.

Secondly, here are some personal aesthetic discoveries I've made in spending a few years around various plastic materials (I'd lived previously with more conventional materials such as wood, concrete, glass, brick, etc.) I've found that the less molecular rearranging a material has undergone, the better it feels to be around. Wood, rock, adobe as compared with polyurethane foam and polycarbonate resin windows.

Oil or Wood

It occurred to me lately that there is a profound difference between the way wood and rock are produced, and the way plastic foam and flexible vinyl windows are manufactured. Consider that a tree is rendered into "building material" by the sun, with a beautiful arrangement of minerals, water, and air into a good smelling, strong,

durable building material. Moreover, trees look good as they grow, they help purify air, provide shade, nuts to squirrels, and colors and textures on the landscape. And wood is the only building material we can regenerate. On the other hand, most plastics are derived by pumping nonrenewable oil from the earth, burning/ refining/ mixing it, with noxious fumes and poison in the rivers and ocean, etc. Of course, saw mills and lumber companies rip stuff up with gasoline motors and saws, and smoke fumes, but it strikes me that the entire process of wood growing and cutting is preferable to the plastics production process. What is called for is tree-respecting forest management.

However, there are obviously many people who feel comfortable with items such as Tang, pink plastic hair curlers and the disposable dishes on airplanes. Discover your ideals as you take your choice.

I tend to feel uncomfortable around any oil-derived or highly processed plastic material. Polyurethane foam seem as if it would be better than the others, but it, too, turns out to be ugly.

In addition to the practical and aesthetic disadvantages I've found in plastics there is the idea that one is dealing with Dow, and the oil industry—that is the people Nixon worked for.

I'm still not afraid to use plastics, I just have a far more realistic picture of what they can do. It turns out, after several years of varied experimentation that plastics can't stand the weather, or if they can they're extremely expensive.

The foam builder tells us foam can be shredded up into mulch. Sure, I reply, it's a good mulch, but it stays in the soil, and after you keep mulching with it, your soil becomes more and more plastic and less and less dirt. Pretty soon you can raise plastic flowers!

After the MIT conference, Peter and I drove out to Cape Cod, spent Friday night in an old inn. It was a beautifully built 100 year old wood building with an elliptical spiral staircase said to have been built by an itinerant carpenter who built three such staircases on the cape. Next to the inn was a large barn which was being converted into an art gallery. I had a drink with the

owner in the inn's small bar and we started talking about buildings. I asked about the barn, and he said, "Do you want to see it tonight?" "Sure."

We walked into the large building in the darkness, and then he switched on the lights. It was about the most dramatic way to see a beautiful old building, the sudden blaze of lights revealed a 100 year old mortise and tenon structure. There were about four loft-levels, and at the top was a hexagonal cupola. The inn's owner sensed something was going on with me in the barn, so he went back to the inn, telling me to stay there as long as I liked. I climbed up all the ladders, up all the stairs, looking at the joinery (wooden pegs.) Then up into the little cupola room which was above the roof line, smoked a joint, sat and looked out over miles of countryside in moonlight. To the north, the water. Sitting there, 50 feet high, supported by hundred year old wooden structure, the futuristic plastic building notions seemed strange indeed.

Machine Birth

The pilgrims actually landed in Provincetown, before Plymouth. One of the first things they did, according to folks in Provincetown, was to steal the Indians' corn crop. I wish I knew more history. Where did this western technology start? Was it due to metals? Machines? Electricity? Resources? What started this thing that led to death of American Indians, much wildlife and forest, massive alteration of air, water and topography? What was the spirit that invaded this continent, machined its way to the Pacific Coast, then eventually got a stranglehold on most of the planet?

I sent an early draft of this writing to Bob Easton; here's part of his reply:

- Science: got started by people studying the stars and biology for healing purposes. Certain principles of mechanics grew out of observing nature: stars, trees, animals. Leonardo. Newton. Etc.
- The New World: Stories of fabulous riches in the East moved western man to explore and hoard —the development of consolidated power by the developing "nations" of Europe

created this awareness of the Roman experience, of super abundance, superpower—lust for more riches, hoarding, super tribes competing for dominance by the ultimate in power display—the greatest accumulation of useless gems, gold. Ferdinand and Isabella. Henry VIII. The new world exploration breeds technology, better equipment to transport. Worship of material objects creates subsystem of technique necessary to masturbate this outrageous lust.

– Slavery: The human slave was considered a machine by Romans, Greeks. European man in his exploitation of the New World riches could condone slavery abroad—possibly the church in its traditions dating back to Roman days would not allow slavery within Europe. The slave “machine” was profitable because it bred, needed cheap fuel, basically looked after itself, wasn’t paid; is the “robot” of the futurists ...

– Slavery Ends: Outrage over conditions slaves are subjected to is voiced by humanists and artists

of the 16th and 17th centuries—a new class—people who have moved thru the arrogance of accumulated objects into new levels of consciousness. These people bring tremendous pressure on the merchant/power/military class first in England, then the US, because they are of a higher class within the social hierarchy of the society...the children of the leaders (Dickens, Swift.) The pressure builds to end slavery—panic—the old order must change. The newly growing technical class is pressed by merchant leaders—possibly unconsciously—or perhaps independent innovators within the merchant class rise to meet the challenge—certainly within the circles of power and technique the fears were voiced. The biology scientist becomes the gross engineer.

– The Answer: Watt develops the artificial heart, the steam engine, and the others all follow: machines analogous to the rest of the body, including the greatest of all, electricity, the machine equivalent to the life force itself.

The answer is the mechanical/electrical slave, the great source of wealth that western man created all by himself. No other culture developed this. China's war lords made gunpowder, etc., but is nothing compared to the incredible competitiveness of the fierce western white tribes. The new idea pioneered in America is now every man can have slaves—cars, labor saving devices, etc., plus the power high gotten off using power tools—the same high gotten off using slaves, basic to the small human ego, which is so susceptible to extending its range of influence and power.

— However, the consumer-people of the western world are but children soon to be cast out of the warm cradle, because the monster slave has begun to die off: the young of today are instinctively cutting off its regeneration. The costs of using its services will soon begin a very rapid rise because of scarcity. The cost of gasoline, electricity, plastics will rise so they can only be bought by the industrialists to maintain their power. As the

unions hoard the skilled jobs and knowledge, their power and wealth will die with them. As the medical professions develop more artificial drugs, the viruses will continue to grow more sophisticated to overcome those drugs and will kill off those who contact those germs/ viruses; since viruses only attack dead cells within the body, the ill-fed people/consumers will be susceptible to disease.

The next main stream culture will be made of the artists and humanists of today's subculture. Why? There may be no alternative. It appears now that the ultimate tool of the techno-fantasy people, the computer, says to turn itself off. (See World Dynamics, by Jay W. Forrester, Wright-Allen Press, 1971.)

Why not listen to Bernard Maybeck who wrote:

"The artist suspects it is not the object nor the likeness of the object he is working for, but a particle of life behind the visible. Here he comes face to face with the real things of life; no assistance can be given him; he cannot hire a boy in gold buttons to open the door to the

Muse (our italics), nor a clerk or accountant to do the drudgery. He is alone with his problem and drifts away from superficial portrayals. After this he strives to find the spiritual meaning of things …”

Above quote from booklet: The Palace of Fine Arts and Lagoon, by Bernard Maybeck, Paul Elder, 1915; quoted in *Five California Architects* by Esther McCov. Reinholt Publishing, 1960.

Man?

Now back to MIT. The computer people at MIT and the air building people have collaborated in various architectural visions. Example: an air building controlled by computer which recognizes people when they come in; and when say 60 people get into the building, the computer unrolls and blows up another plastic section to accommodate more people. The occupants have control over windows, for example —they can make windows appear or disappear. Computer allows occupants to change shape of building at will. “Hal, will you set the table for eight tonight?”

Another idea that's been around for a while, that came up at MIT: architect draws on cathode tube with magnetic pencil; design for a foam house is fed into computer. Computer operates a foam truck with barrels of foam, boom, and extruding device. The truck boom manipulates around, extruding walls of the house. The house is built with no human hands touching it.

Wait! at this point, the last day of the conference, I started yelling. (Sym van der Ryn had been arguing with them earlier.)

“This is an architectural conference, there are no people here, just professionals playing academic futuristic games. No women, kids, men here to react to your ideas, academic insularity. Moreover, you designers, especially the ones with artistic abilities, are making plastics and a totally impractical and weird shelter outlook appear seductively appealing to those folks who are always looking for something new and flashy. Spacy air buildings are deceptive, that's all. No one is ever going to really live that way, but it's

good media. The same thing I learned with domes, they photograph well."

The planet needs nonpolluting energy sources. Solar heat, wind electricity, methane from compost. Revive waterwheels; sawmills in New Hampshire were driven by water power. Put 2/3rds of the staff at MIT on developing clean(er) burning motor vehicles! Create a mind bank with the Architecture Machine and come up with a solution to internal combustion before the Chinese have two cars per family! If successful you will be national heroes upon graduation, and receive free nonpolluting cars the rest of your natural lives.

Architects, use your skills and desirable positions to assist in current housing problems. Help people! You don't have to find a gigantic new solution to housing. The answer may be in our hands. Whisk Whisk Whisk, the sound of 100,000 Chinese brooms sweeping snow off Peking streets. No snowplows. The excreta of Peking collected and used for fertilizer. No sewage problem.

MIT, architecture schools, have you ever considered that in some cases, designs get about as good as they're going to get, and then don't improve for millions of years. Look at our hand! Is there a need to redesign it? Have architects, builders ever considered that our grandparents, but more specially the Indians, built far more sensibly than today's building industry? And that maybe looking for new structures and new materials isn't that important right now? that you can't think about building, or design unless you consider the lifestyle? And that the extravagant use of resources in the US now can't last, and is in fact maintained at the expense of subjugated, bombed, exploited third world people everywhere?

I was particularly disturbed by the vision of the architect sitting at the cathode tube, drawing his design into the computer, the computer causing the foam truck to build the house. The ultimate in laziness, machine worship. Machine can do anything better than man if we develop machine enough, is the premise. Wrong! It's going to look horrible—guaranteed—it's going to cost too much, it's going to be

ecologically unsound, it will only produce environments that machines or machine-like people will want to inhabit.

John Ryckman of Montreal sent us a photo of a Thai man weaving a rainproof head shield with the following comment:

He never heard of “great circle theory”—doesn’t know geodesics from A,B,C,—and thinks Buckminster Fuller is nothing but a smooth-talking evil spirit!

So, there’s a lot of trickery and hype afoot, I ran into a good deal of it and wish to pass along my disillusionments for the edification of those who won’t therefore have to go through the same trial and error (much error!) process.

Buckminster Fuller’s description of man (from chapter, The Phantom Captain, Nine Chains to the Moon): Man?

A self balancing 28-jointed adapter-base biped; an electrochemical reduction plant, integral with segregated stowages of special energy extracts in storage batteries, for subsequent actuation of

thousands of hydraulic and pneumatic pumps, with motors attached; 62,000 miles of capillaries; millions of warning signals, railroad and conveyor systems; crushers and cranes …

Hand-Owner-Self Built

Here is a quick summary of some shines I’ve learned about shelter:

- Use of human hands is essential, at least in single-house structures. Human energy is produced in a clean manner, compared to oil-burning machines. We are writing for people who want to use hands to build.
- It took me a long time to realize the formula:

Economy/Beauty/Durability: Time

- You’ve got to take time to make a good shelter. Manual human energy. For example, used lumber looks better than new lumber, but you’ve got to pull the nails, clean it, work with its irregularities. A rock wall takes far more time to build than a sprayed foam wall.

- The best materials are those that come from close by, with the least processing possible. Wood is good in damp climates, which is where trees grow. In the desert where it is hot and you need good insulation there is no wood, but plenty of dirt, adobe. Thatch can be obtained in many places, and the only processing required is cutting it.
- Plastics and computers are far overrated in their possible applications to housing.
- There is a huge amount of information on building that has almost been lost. We'll publish what we can, not out of nostalgia but because many of the 100 year old ways of building are more sensible right now. There are 80 year olds who remember how to build, and there are little-known books which we'll be consulting in transmission of hand-owner-self-built shelter information.

Before I left home, Peter Warshall told me to be sure to see the Peabody Museum of the American Indian at Harvard. So the first day of the conference, and twice thereafter

that week, we went over to Harvard, and I was truly staggered. Seeing these things in real life rather than pictures—so unbelievably beautiful! Since I like to work with my hands, I usually look at the way objects are made. Chumash baskets!! All hunting, religious, cooking implements are incredibly crafted, fashioned and ornamented by men and women in touch with the earth and its streams and breezes.

Ingenious shelters! At the museum someone has made fine models of Indian villages with cutaways showing how their structures were built. There are even miniature baskets in the model settlements.

Walking amidst magnificence of Indian craftsmen with MIT dimly in mind, I realized that there may not be any wondrous new solution to housing at all. That there is far more to learn from wisdom of the past and from materials appearing naturally on the earth, than from any further extension of whiteman technoplastic prowess.

— Relics of the past (Indians)
vs
Visions of the future (MIT),

No contest.

We've been losing ground.

From: [https://www.shelterpub.com
/domes/](https://www.shelterpub.com/domes/)

BIG DATA MEETS BIG BROTHER AS CHINA MOVES TO RATE ITS CITIZENS

* wired.co.uk* Saturday 21 October 2017*

Rachel Botsman* 18 minute read *



Kevin Hong

On June 14, 2014, the State Council of China published an ominous-sounding document called "Planning Outline for the Construction of a Social Credit System¹". In the way of Chinese policy documents, it was a lengthy and rather dry affair, but it contained a radical idea. What if there was a national trust score that rated the kind of citizen you were?

Imagine a world where many of your daily activities were constantly monitored and evaluated: what you buy at the shops and online; where you are at any given time; who your friends are and how you interact with them; how many hours you spend watching content or playing video games; and what bills and taxes you pay (or not). It's not hard to picture, because most of that already happens, thanks to all those data-collecting behemoths like Google, Facebook and Instagram or health-tracking apps such as Fitbit. But now imagine a system where all these behaviours are rated as either positive or negative and distilled into a single number, according to rules set by the government. That would create your Citizen Score and it would tell everyone whether or not you were trustworthy. Plus, your rating would be publicly ranked against that of the entire population

and used to determine your eligibility for a mortgage or a job, where your children can go to school - or even just your chances of getting a date.

A futuristic vision of Big Brother out of control? No, it's already getting underway in China, where the government is developing the Social Credit System (SCS) to rate the trustworthiness of its 1.3 billion citizens. The Chinese government is pitching the system as a desirable way to measure and enhance "trust" nationwide and to build a culture of "sincerity". As the policy states, "It will forge a public opinion environment where keeping trust is glorious. It will strengthen sincerity in government affairs, commercial sincerity, social sincerity and the construction of judicial credibility."

China's new viral app could be straight out of Black Mirror²

Others are less sanguine about its wider purpose. "It is very ambitious in both depth and scope, including scrutinising individual behaviour and what books people are reading.

"It's Amazon's consumer tracking with an Orwellian political twist," is how Johan Lagerkvist, a Chinese internet specialist at the Swedish Institute of International Affairs, described the social credit system. Rogier Creemers, a post-doctoral scholar specialising in Chinese law and governance at the Van Vollenhoven Institute at Leiden University, who published a comprehensive translation of the plan, compared it to "Yelp reviews with the nanny state watching over your shoulder".

For now, technically, participating in China's Citizen Scores is voluntary. But by 2020 it will be mandatory. The behaviour of every single citizen and legal person (which includes every company or other entity) in China will be rated and ranked, whether they like it or not.



Kevin Hong

Prior to its national roll-out in 2020, the Chinese government is taking a watch-and-learn approach. In this marriage between communist oversight and capitalist can-do, the government has given a licence to eight private companies to come up with systems and algorithms for social credit scores. Predictably, data giants currently run two of the best-known projects.

The first is with China Rapid Finance, a partner of the social-network behemoth Tencent and developer of the messaging app *WeChat* with more than 850 million active users. The other, Sesame Credit, is run by the Ant Financial Services Group (AFSG), an affiliate

company of Alibaba. Ant Financial sells insurance products and provides loans to small- to medium-sized businesses. However, the real star of Ant is AliPay, its payments arm that people use not only to buy things online, but also for restaurants, taxis, school fees, cinema tickets and even to transfer money to each other.

Sesame Credit has also teamed up with other data-generating platforms, such as Didi Chuxing, the ride-hailing company that was Uber's main competitor in China before it acquired the American company's Chinese operations in 2016, and Baihe, the country's largest online matchmaking service. It's not hard to see how that all adds up to gargantuan amounts of big data that Sesame Credit can tap into to assess how people behave and rate them accordingly.

So just how are people rated? Individuals on Sesame Credit are measured by a score ranging between 350 and 950 points. Alibaba does not divulge the "complex algorithm" it uses to calculate the number but they do reveal the five factors taken into account. The first

is credit history. For example, does the citizen pay their electricity or phone bill on time? Next is fulfilment capacity, which it defines in its guidelines as "a user's ability to fulfil his/her contract obligations". The third factor is personal characteristics, verifying personal information such as someone's mobile phone number and address. But the fourth category, behaviour and preference, is where it gets interesting.

Under this system, something as innocuous as a person's shopping habits become a measure of character. Alibaba admits it judges people by the types of products they buy. "Someone who plays video games for ten hours a day, for example, would be considered an idle person," says Li Yingyun, Sesame's Technology Director. "Someone who frequently buys diapers would be considered as probably a parent, who on balance is more likely to have a sense of responsibility." So the system not only investigates behaviour - it shapes it. It "nudges" citizens away from purchases and behaviours the government does not like.

Friends matter, too. The fifth category is interpersonal relationships. What does their choice of online friends and their interactions say about the person being assessed? Sharing what Sesame Credit refers to as "positive energy" online, nice messages about the government or how well the country's economy is doing, will make your score go up.

Alibaba is adamant that, currently, anything negative posted on social media does not affect scores (we don't know if this is true or not because the algorithm is secret). But you can see how this might play out when the government's own citizen score system officially launches in 2020. Even though there is no suggestion yet that any of the eight private companies involved in the ongoing pilot scheme will be ultimately responsible for running the government's own system, it's hard to believe that the government will not want to extract the maximum amount of data for its SCS, from the pilots. If that happens, and continues as the new normal under the government's own SCS it will result in private

platforms acting essentially as spy agencies for the government. They may have no choice.

Posting dissenting political opinions or links mentioning Tiananmen Square has never been wise in China, but now it could directly hurt a citizen's rating. But here's the real kicker: a person's own score will also be affected by what their online friends say and do, beyond their own contact with them. If someone they are connected to online posts a negative comment, their own score will also be dragged down.

So why have millions of people already signed up to what amounts to a trial run for a publicly endorsed government surveillance system? There may be darker, unstated reasons - fear of reprisals, for instance, for those who don't put their hand up - but there is also a lure, in the form of rewards and "special privileges" for those citizens who prove themselves to be "trustworthy" on Sesame Credit.

If their score reaches 600, they can take out a Just Spend loan of up to 5,000 yuan (around £565) to use to shop online, as long as it's on an

Alibaba site. Reach 650 points, they may rent a car without leaving a deposit. They are also entitled to faster check-in at hotels and use of the VIP check-in at Beijing Capital International Airport. Those with more than 666 points can get a cash loan of up to 50,000 yuan (£5,700), obviously from Ant Financial Services. Get above 700 and they can apply for Singapore travel without supporting documents such as an employee letter. And at 750, they get fast-tracked application to a coveted pan-European Schengen visa. "I think the best way to understand the system is as a sort of bastard love child of a loyalty scheme," says Creemers.

Higher scores have already become a status symbol, with almost 100,000 people bragging about their scores on Weibo (the Chinese equivalent of Twitter) within months of launch. A citizen's score can even affect their odds of getting a date, or a marriage partner, because the higher their Sesame rating, the more prominent their dating profile is on Baihe.

Sesame Credit already offers tips to help individuals improve their ranking, including warning about

the downsides of friending someone who has a low score. This might lead to the rise of score advisers, who will share tips on how to gain points, or reputation consultants willing to offer expert advice on how to strategically improve a ranking or get off the trust-breaking blacklist.

Indeed, the government's Social Credit System is basically a big data gamified version of the Communist Party's surveillance methods; the disquieting *dang'an*. The regime kept a dossier on every individual that tracked political and personal transgressions. A citizen's *dang'an* followed them for life, from schools to jobs. People started reporting on friends and even family members, raising suspicion and lowering social trust in China. The same thing will happen with digital dossiers. People will have an incentive to say to their friends and family, "Don't post that. I don't want you to hurt your score but I also don't want you to hurt mine."

We're also bound to see the birth of reputation black markets selling under-the-counter ways to boost trustworthiness. In the same way

that Facebook Likes and Twitter followers can be bought, individuals will pay to manipulate their score. What about keeping the system secure? Hackers (some even state-backed) could change or steal the digitally stored information.

The new system reflects a cunning paradigm shift. As we've noted, instead of trying to enforce stability or conformity with a big stick and a good dose of top-down fear, the government is attempting to make obedience feel like gaming. It is a method of social control dressed up in some points-reward system. It's gamified obedience.

In a trendy neighbourhood in downtown Beijing, the BBC news services hit the streets in October 2015 to ask people about their Sesame Credit ratings. Most spoke about the upsides. But then, who would publicly criticise the system? Ding, your score might go down. Alarmingly, few people understood that a bad score could hurt them in the future. Even more concerning was how many people had no idea that they were being rated.

Currently, Sesame Credit does not directly penalise people for being "untrustworthy" - it's more effective to lock people in with treats for good behaviour. But Hu Tao, Sesame Credit's chief manager, warns people that the system is designed so that "untrustworthy people can't rent a car, can't borrow money or even can't find a job". She has even disclosed that Sesame Credit has approached China's Education Bureau about sharing a list of its students who cheated on national examinations, in order to make them pay into the future for their dishonesty.

Penalties are set to change dramatically when the government system becomes mandatory in 2020. Indeed, on September 25, 2016, the State Council General Office updated its policy entitled "Warning and Punishment Mechanisms for Persons Subject to Enforcement for Trust-Breaking". The overriding principle is simple: "If trust is broken in one place, restrictions are imposed everywhere," the policy document states.

For instance, people with low ratings will have slower internet speeds; restricted access to restaurants, nightclubs or golf courses; and the removal of the right to travel freely abroad with, I quote, "restrictive control on consumption within holiday areas or travel businesses". Scores will influence a person's rental applications, their ability to get insurance or a loan and even social-security benefits. Citizens with low scores will not be hired by certain employers and will be forbidden from obtaining some jobs, including in the civil service, journalism and legal fields, where of course you must be deemed trustworthy. Low-rating citizens will also be restricted when it comes to enrolling themselves or their children in high-paying private schools. I am not fabricating this list of punishments. It's the reality Chinese citizens will face. As the government document states, the social credit system will "allow the trustworthy to roam everywhere under heaven while making it hard for the discredited to take a single step".

According to Luciano Floridi, a professor of philosophy and ethics of information at the University of Oxford and the director of research at the Oxford Internet Institute, there have been three critical "de-centering shifts" that have altered our view in self-understanding: Copernicus's model of the Earth orbiting the Sun; Darwin's theory of natural selection; and Freud's claim that our daily actions are controlled by the unconscious mind.

China is overrun with unicorns³

Floridi believes we are now entering the fourth shift, as what we do online and offline merge into an onlife. He asserts that, as our society increasingly becomes an infosphere, a mixture of physical and virtual experiences, we are acquiring an onlife personality - different from who we innately are in the "real world" alone. We see this writ large on Facebook, where people present an edited or idealised portrait of their lives. Think about your Uber experiences. Are you just a little bit nicer to the driver because you know you will be rated? But Uber ratings are nothing compared to Peeple, an app

launched in March 2016, which is like a Yelp for humans. It allows you to assign ratings and reviews to everyone you know - your spouse, neighbour, boss and even your ex. A profile displays a "Peeple Number", a score based on all the feedback and recommendations you receive. Worryingly, once your name is in the Peeple system, it's there for good. You can't opt out.

Peeple has forbidden certain bad behaviours including mentioning private health conditions, making profanities or being sexist (however you objectively assess that). But there are few rules on how people are graded or standards about transparency.

China's trust system might be voluntary as yet, but it's already having consequences. In February 2017, the country's Supreme People's Court announced that 6.15 million of its citizens had been banned from taking flights over the past four years for social misdeeds. The ban is being pointed to as a step toward blacklisting in the SCS. "We have signed a memorandum... [with over] 44 government departments in order to limit 'discredited' people on

multiple levels," says Meng Xiang, head of the executive department of the Supreme Court. Another 1.65 million blacklisted people cannot take trains.

Where these systems really descend into nightmarish territory is that the trust algorithms used are unfairly reductive. They don't take into account context. For instance, one person might miss paying a bill or a fine because they were in hospital; another may simply be a freeloader. And therein lies the challenge facing all of us in the digital world, and not just the Chinese. If life-determining algorithms are here to stay, we need to figure out how they can embrace the nuances, inconsistencies and contradictions inherent in human beings and how they can reflect real life.



Kevin Hong

You could see China's so-called **trust plan as** Orwell's 1984 meets Pavlov's dogs. Act like a good citizen, be rewarded and be made to think you're having fun. It's worth remembering, however, that personal scoring systems have been present in the west for decades.

More than 70 years ago, two men called Bill Fair and Earl Isaac invented credit scores. Today, companies use FICO scores to determine many financial decisions, including the interest rate on our mortgage or whether we should be given a loan.

For the majority of Chinese people, they have never had credit scores and so they can't get credit. "Many people don't own houses, cars or credit cards in China, so that kind of information isn't available to measure," explains Wen Quan, an influential blogger who writes about technology and finance. "The central bank has the financial data from 800 million people, but only 320 million have a traditional credit history." According to the Chinese Ministry of Commerce, the annual

economic loss caused by lack of credit information is more than 600 billion yuan (£68bn).

China's lack of a national credit system is why the government is adamant that Citizen Scores are long overdue and badly needed to fix what they refer to as a "trust deficit". In a poorly regulated market, the sale of counterfeit and substandard products is a massive problem. According to the Organization for Economic Co-operation and Development (OECD), 63 per cent of all fake goods, from watches to handbags to baby food, originate from China. "The level of micro corruption is enormous," Creemers says. "So if this particular scheme results in more effective oversight and accountability, it will likely be warmly welcomed."

The government also argues that the system is a way to bring in those people left out of traditional credit systems, such as students and low-income households. Professor Wang Shuqin from the Office of Philosophy and Social Science at Capital Normal University in China recently won the bid to help the government develop the system that

she refers to as "China's Social Faithful System". Without such a mechanism, doing business in China is risky, she stresses, as about half of the signed contracts are not kept. "Given the speed of the digital economy it's crucial that people can quickly verify each other's credit worthiness," she says. "The behaviour of the majority is determined by their world of thoughts. A person who believes in socialist core values is behaving more decently." She regards the "moral standards" the system assesses, as well as financial data, as a bonus.

Indeed, the State Council's aim is to raise the "honest mentality and credit levels of the entire society" in order to improve "the overall competitiveness of the country". Is it possible that the SCS is in fact a more desirably transparent approach to surveillance in a country that has a long history of watching its citizens? "As a Chinese person, knowing that everything I do online is being tracked, would I rather be aware of the details of what is being monitored and use this information to teach myself how to abide by the rules?" says

Rasul Majid, a Chinese blogger based in Shanghai who writes about behavioural design and gaming psychology. "Or would I rather live in ignorance and hope/wish/dream that personal privacy still exists and that our ruling bodies respect us enough not to take advantage?" Put simply, Majid thinks the system gives him a tiny bit more control over his data.



When I tell westerners about the Social Credit System in China, their responses are fervent and visceral. Yet we already rate restaurants, movies, books and even doctors. Facebook, meanwhile, is now capable of identifying you in pictures without seeing your face; it

only needs your clothes, hair and body type to tag you in an image with 83 per cent accuracy.

In 2015, the OECD published a study revealing that in the US there are at least 24.9 connected devices per 100 inhabitants. All kinds of companies scrutinise the "big data" emitted from these devices to understand our lives and desires, and to predict our actions in ways that we couldn't even predict ourselves.

Governments around the world are already in the business of monitoring and rating. In the US, the National Security Agency (NSA) is not the only official digital eye following the movements of its citizens. In 2015, the US Transportation Security Administration proposed the idea of expanding the PreCheck background checks to include social-media records, location data and purchase history. The idea was scrapped after heavy criticism, but that doesn't mean it's dead. We already live in a world of predictive algorithms that determine if we are a threat, a risk, a good citizen and even if we are trustworthy. We're getting closer to the Chinese system

- the expansion of credit scoring into life scoring - even if we don't know we are.

So are we heading for a future where we will all be branded online and data-mined? It's certainly trending that way. Barring some kind of mass citizen revolt to wrench back privacy, we are entering an age where an individual's actions will be judged by standards they can't control and where that judgement can't be erased. The consequences are not only troubling; they're permanent. Forget the right to delete or to be forgotten, to be young and foolish.

While it might be too late to stop this new era, we do have choices and rights we can exert now. For one thing, we need to be able rate the raters. In his book *The Inevitable*, Kevin Kelly describes a future where the watchers and the watched will transparently track each other. "Our central choice now is whether this surveillance is a secret, one-way panopticon - or a mutual, transparent kind of 'coveillance' that involves watching the watchers," he writes.

Our trust should start with individuals within government (or whoever is controlling the system). We need trustworthy mechanisms to make sure ratings and data are used responsibly and with our permission. To trust the system, we need to reduce the unknowns. That means taking steps to reduce the opacity of the algorithms. The argument against mandatory disclosures is that if you know what happens under the hood, the system could become rigged or hacked. But if humans are being reduced to a rating that could significantly impact their lives, there must be transparency in how the scoring works.

As China's space station crashes to Earth, its Mars plans are in doubt⁴

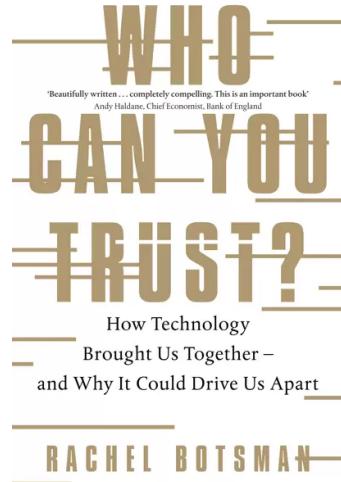
In China, certain citizens, such as government officials, will likely be deemed above the system. What will be the public reaction when their unfavourable actions don't affect their score? We could see a Panama Papers 3.0 for reputation fraud.

It is still too early to know how a culture of constant monitoring plus rating will turn out. What will

happen when these systems, charting the social, moral and financial history of an entire population, come into full force? How much further will privacy and freedom of speech (long under siege in China) be eroded? Who will decide which way the system goes? These are questions we all need to consider, and soon. Today China, tomorrow a place near you. The real questions about the future of trust are not technological or economic; they are ethical.

If we are not vigilant, distributed trust could become networked shame. Life will become an endless popularity contest, with us all vying for the highest rating that only a few can attain.

This is an extract from Who Can You Trust? How Technology Brought Us Together and Why It Might Drive Us Apart⁵ (Penguin Portfolio) by Rachel Botsman, published on October 4. Since this piece was written, The People's Bank of China delayed the licences to the eight companies conducting social credit pilots. The government's plans to launch the Social Credit System in 2020 remain unchanged



Updated 28.11.17: An amendment has been made to clarify a comparison between the Chinese government's Social Credit System and Communist Party surveillance methods.

From: <https://www.wired.co.uk/article/chinese-government-social-credit-score-privacy-invasion>

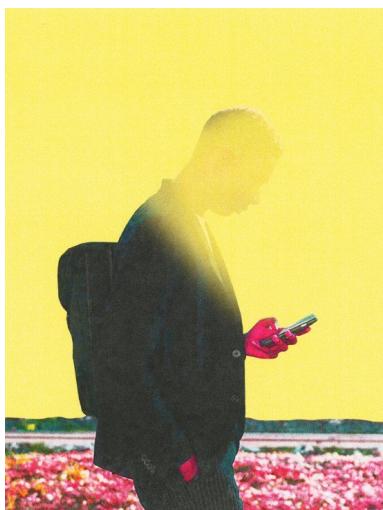
- <https://www.wired.co.uk/article/china-social-credit-system-explained>
- <https://www.wired.co.uk/article/china-app-clap-tencent>
- <https://www.wired.co.uk/article/the-chinese-start-ups-worth-1-billion-that-you-havent-even-heard-of>
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I ASKED MY STUDENTS TO TURN IN THEIR CELL PHONES AND WRITE ABOUT LIVING WITHOUT THEM

* technologyreview.com*

Thursday 26 December 2019* Ron Stigley*

10 minute read *



Selman design *Selman design*

A few years ago, I performed an experiment in a philosophy class I was teaching. My students had failed a midterm test rather badly. I had a hunch that their pervasive use of cell phones and laptops in class was partly responsible. So I asked them what they thought had gone wrong. After a few moments of

silence, a young woman put up her hand and said: “We don’t understand what the books say, sir. We don’t understand the words.” I looked around the class and saw guileless heads pensively nodding in agreement.

1

This story is part of our January/February 2020 issue

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I extemporized a solution: I offered them extra credit if they would give me their phones for nine days and write about living without them. Twelve students—about a third of the class—took me up on the offer. What they wrote was remarkable, and remarkably consistent. These university students, given the chance to say what they felt, didn’t gracefully submit to the tech industry and its devices.

The usual industry and education narrative about cell phones, social media, and digital technology generally is that they build community, foster communication, and increase efficiency, thus improving our lives. Mark Zuckerberg's recent reformulation of Facebook's mission statement is typical: the company aims to "give people the power to build community and bring the world closer together."

Without their phones, most of my students initially felt lost, disoriented, frustrated, and even frightened. That seemed to support the industry narrative: look how disconnected and lonely you'll be without our technology. But after just two weeks, the majority began to think that their cell phones were in fact limiting their relationships with other people, compromising their own lives, and somehow cutting them off from the "real" world. Here is some of what they said.



Selman design *Selman design*

"You must be weird or something"

"Believe it or not, I had to walk up to a stranger and ask what time it was. It honestly took me a lot of guts and confidence to ask someone," Janet wrote. (Her name, like the others here, is a pseudonym.) She describes the attitude she was up against: "Why do you need to ask me the time? Everyone has a cell phone. You must be weird or something." Emily went even further. Simply walking by strangers "in the hallway or when I passed them on the street" caused almost all of them to take out a phone "right before I could gain eye contact with them."

To these young people, direct, unmediated human contact was experienced as ill-mannered at best and strange at worst. James: “One of the worst and most common things people do nowadays is pull out their cell phone and use it while in a face-to-face conversation. This action is very rude and unacceptable, but yet again, I find myself guilty of this sometimes because it is the norm.” Emily noticed that “a lot of people used their cell phones when they felt they were in an awkward situation, for an example [sic] being at a party while no one was speaking to them.”

The price of this protection from awkward moments is the loss of human relationships, a consequence that almost all the students identified and lamented. Without his phone, James said, he found himself forced to look others in the eye and engage in conversation. Stewart put a moral spin on it. “Being forced to have [real relations with people] obviously made me a better person because each time it happened I learned how to deal with the situation better, other than sticking

my face in a phone.” Ten of the 12 students said their phones were compromising their ability to have such relationships.

Virtually all the students admitted that ease of communication was one of the genuine benefits of their phones. However, eight out of 12 said they were genuinely relieved not to have to answer the usual flood of texts and social-media posts. Peter: “I have to admit, it was pretty nice without the phone all week. Didn’t have to hear the fucking thing ring or vibrate once, and didn’t feel bad not answering phone calls because there were none to ignore.”

Indeed, the language they used indicated that they experienced this activity almost as a type of harassment. “It felt so free without one and it was nice knowing no one could bother me when I didn’t want to be bothered,” wrote William. Emily said that she found herself “sleeping more peacefully after the first two nights of attempting to sleep right away when the lights got shut off.” Several students went further and claimed that communication with others was in

fact easier and more efficient *without* their phones. Stewart: “Actually I got things done much quicker without the cell because instead of waiting for a response from someone (that you don’t even know if they read your message or not) you just called them [from a land line], either got an answer or didn’t, and moved on to the next thing.”

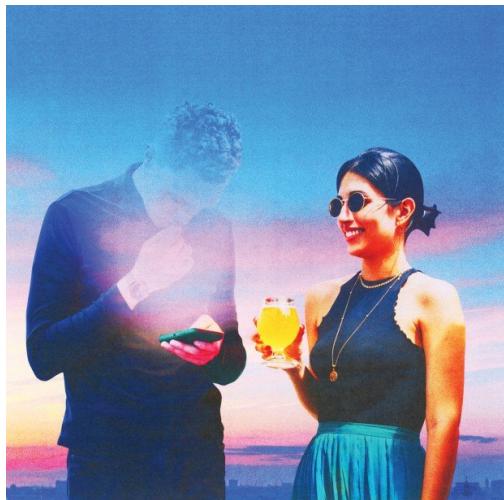
Technologists assert that their instruments make us more productive. But for the students, phones had the opposite effect. “Writing a paper and not having a phone boosted productivity at least twice as much,” Elliott claimed. “You are concentrated on one task and not worrying about anything else. Studying for a test was much easier as well because I was not distracted by the phone at all.” Stewart found he could “sit down and actually focus on writing a paper.” He added, “Because I was able to give it 100% of my attention, not only was the final product better than it would have been, I was also able to complete it much quicker.” Even Janet, who missed her phone more than most, admitted, “One positive thing that came out of not

having a cell phone was that I found myself more productive and I was more apt to pay attention in class.”

Some students felt not only distracted by their phones, but morally compromised. Kate: “Having a cell phone has actually affected my personal code of morals and this scares me … I regret to admit that I have texted in class this year, something I swore to myself in high school that I would never do … I am disappointed in myself now that I see how much I have come to depend on technology … I start to wonder if it has affected who I am as a person, and then I remember that it already has.” And James, though he says we must continue to develop our technology, said that “what many people forget is that it is vital for us not to lose our fundamental values along the way.”

Other students were worried that their cell-phone addiction was depriving them of a relationship to the world. Listen to James: “It is almost like the earth stood still and I actually looked around and cared about current events … This experiment has made many things clear to me and one thing is for

sure, I am going to cut back the time I am on my cell phone substantially.”



Selman design *Selman design*

Stewart said he began to see how things “really work” once he was without his phone: “One big thing I picked up on while doing this assignment is how much more engaged I was in the world around me … I noticed that the majority of people were disengaged … There is all this potential for conversation, interaction, and learning from one another but we’re too distracted by the screens … to partake in the real events around us.”

In parentis, loco

Some parents were pleased with their children’s phone-less selves. James said his mother “thought it was great that I did not have my phone because I paid more attention to her while she was talking.” One parent even proposed to join in the experiment.

But for some of the students, phones were a lifeline to their parents. As Karen Fingerman of the University of Texas at Austin wrote in a 2017 article in the journal *Innovation in Aging*, in the mid to late 20th century, “only half of [American] parents reported contact with a grown child at least once a week.” By contrast, she writes, recent studies find that “nearly all” parents of young adults were in weekly contact with their children, and over half were in daily contact by phone, by text message, or in person.

Emily wrote that without her cell phone, “I felt like I was craving some interaction from a family member. Either to keep my ass in line with the upcoming exams, or to simply let me know someone is supporting me.” Janet admitted, “The most difficult thing was

defiantly [sic] not being able to talk to my mom or being able to communicate with anyone on demand or at that present moment. It was extremely stressful for my mom.”

Safety was also a recurrent theme. Janet said, “Having a cell phone makes me feel secure in a way. So having that taken away from me changed my life a little. I was scared that something serious might happen during the week of not having a cell phone.” And she wondered what would have happened “if someone were to attack me or kidnap me or some sort of action along those lines or maybe even if I witnessed a crime take place, or I needed to call an ambulance.”



Selman design *Selman design*

What's revealing is that this student and others perceived the world to be a very dangerous place. Cell phones were seen as necessary to combat that danger. The city in which these students lived has one of the lowest crime rates in the world and almost no violent crime of any kind, yet they experienced a pervasive, undefined fear.

Live in fragments no longer

My students' experience of cell phones and the social-media platforms they support may not be exhaustive, or statistically representative. But it is clear that these gadgets made them feel less alive, less connected to other people

and to the world, and less productive. They also made many tasks more difficult and encouraged students to act in ways they considered unworthy of themselves. In other words, phones didn't help them. They harmed them.

I first carried out this exercise in 2014. I repeated it last year in the bigger, more urban institution where I now teach. The occasion this time wasn't a failed test; it was my despair over the classroom experience in its entirety. I want to be clear here—this is not personal. I have a real fondness for my students as people. But they're abysmal students; or rather, they aren't really students at all, at least not in my class. On any given day, 70% of them are sitting before me shopping, texting, completing assignments, watching videos, or otherwise occupying themselves. Even the "good" students do this. No one's even trying to conceal the activity, the way students did before. This is just what they do.

What's changed? Most of what they wrote in the assignment echoed the papers I'd received in 2014. The phones were compromising their

relationships, cutting them off from real things, and distracting them from more important matters. But there were two notable differences. First, for these students, even the simplest activities—getting on the bus or train, ordering dinner, getting up in the morning, even knowing where they were—required their cell phones. As the phone grew more ubiquitous in their lives, their fear of being without it seemed to grow apace. They were jittery, lost, without them.

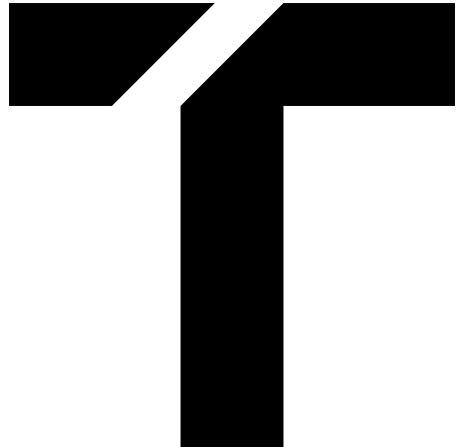
This may help to explain the second difference: compared with the first batch, this second group displayed a fatalism about phones. Tina's concluding remarks described it well: "Without cell phones life would be simple and real but we may not be able to cope with the world and our society. After a few days I felt alright without the phone as I got used to it. But I guess it is only fine if it is for a short period of time. One cannot hope to compete efficiently in life without a convenient source of communication that is our phones." Compare this admission with the

reaction of Peter, who a few months after the course in 2014 tossed his smartphone into a river.

I think my students are being entirely rational when they “distract” themselves in my class with their phones. They understand the world they are being prepared to enter much better than I do. In that world, I’m the distraction, not their phones or their social-media profiles or their networking. Yet for what I’m supposed to be doing—educating and cultivating young hearts and minds—the consequences are pretty dark.

Paula was about 28, a little older than most students in the class. She’d returned to college with a real desire to learn after working for almost a decade following high school. I’ll never forget the morning she gave a presentation to a class that was even more alternatively engaged than usual. After it was all over, she looked at me in despair and said, simply: “How in the world do you do this?”

Ron Srigley is a writer who teaches at Humber College and Laurentian University.



Selman design *Selman design*

From: <https://www.technologyreview.com/s/614934/teenagers-without-cell-phones/>

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THE SECOND SAGE

* aeon.co * Wednesday 05 June 2019 *
Bryan W Van Norden * 15 minute read *



Mencius, The Three Moves. Anonymous drawing, China, 20th century. Photo by AKG Images AKG Images

A man is hiking in the countryside when he suddenly sees a toddler about to fall into an abandoned well. What will he do? Many people will instinctively run toward the toddler to save him. However, some people will simply panic, freezing in the moment of crisis. A handful of people might start to move toward the child, but then stop, because they realise that the crumbling old well could collapse under their weight. Their initial impulse to save the child competes with their desire for self-preservation.

The fact is that we cannot be entirely sure what a human in this situation will *do*. What we can be sure of is what a human in this situation will *feel*: alarm that the child is in danger, and compassion for any potential suffering. What if someone did not have these feelings? What about someone who could look upon a child about to fall into a well with nothing but indifference, or perhaps even amusement? We describe those who are this unfeeling as ‘inhuman’, more like a beast than a person.

This thought experiment was formulated by the ancient Confucian Mengzi, the most influential philosopher in world history whom you have probably never heard of. He uses it to argue that, contrary to egoists, and to those who believe that human psychology is a *tabula rasa*, human nature is hard-wired with an incipient tendency toward compassion for the suffering of others.

Although Mengzi was born long after Confucius died, he is referred to as the ‘Second Sage’ because he shaped the form that Confucianism would take for the next two millennia, not just in China, but also in Korea, Japan and Vietnam. Also known as ‘Mencius’ (the Latinisation of his name given by early Jesuit missionaries), Mengzi is attracting renewed interest among Western philosophers. Not only does Mengzi provide an intriguing alternative to Aristotelian accounts of the virtues and their cultivation, but his claims about human nature are supported by recent empirical research. Beyond the intrinsic philosophical interest of Mengzi’s thought, it behooves us to learn more about it because Chinese culture is increasingly abandoning the radical Marxism of the Mao era and returning to a reverence for traditional systems of thought such as Confucianism.

Confucius (551-479 BCE) did not regard himself as founding a school. In the *Analects* (the collected sayings of Confucius and his immediate disciples), Confucius said: ‘I transmit but do not innovate.

I am faithful to and love antiquity.’ Of course, no one with a mind as brilliant as that of Confucius simply repeats the past. All explanation is re-interpretation. But both Confucius himself and his later followers conceived of him as transmitting the Way – the right way to live and to organise society – that had been discovered by sages even more ancient than Confucius. This Way is based upon what contemporary philosophers such as Thomas Nagel refer¹ to as ‘agent-relative obligations’: the filial piety that I owe to my mother and father precisely because they are *my* parents; respect for those who are elder to *me*; the loyalty I owe to *my* friends and to *my* spouse; and the special affection I have for *my* children.

This does not mean that I should be indifferent to strangers. The whole point of the child-at-the-well story is that our compassion extends to all humans. However, as one of Confucius’s disciples put it: ‘Are not filial piety and respect for our elders the root of benevolence?’ In other words, it is in the family that our

dispositions to love and show respect for others are first incubated.

For Confucius, the cultivation of virtue was intimately connected with the problem of good government. He lived during a time when China was divided into distinct states that incessantly warred against one another for dominance. One response to this situation, illustrated by the *Art of War* (a work of the fourth-century BCE attributed to Sunzi), was for rulers to seek dominance by perfecting military strategy. However, Confucius argued that the Way to security and peace is by getting virtuous people into positions of government authority. These people would work to benefit the common people, and would lead through moral inspiration rather than brute force.

Mengzi was born in 372 BCE, so he never met Confucius. However, Mengzi was so inspired by Confucius's Way that he took it upon himself to explain and defend it to the people of his generation. In the eponymous *Mengzi* (the collection of his dialogues, debates

and sayings), he complains that 'the words of Yang Zhu and Mozi fill the world!' Mozi, the first systematic critic of Confucianism, was best known for advocating 'impartial caring', the view that we should care for everyone equally, regardless of whether they are members of our family or complete strangers. (Mohism, the school of thought Mozi inspired, is similar to Western utilitarianism in being 'agent-neutral' rather than 'agent-relative').

Mengzi argued that Mozi's impartial caring makes ethical demands of humans that are impractical, given the limitations of human nature. In a debate with a follower of Mozi, Mengzi asked whether he 'truly believed that a person loves his neighbour's child as much as his own nephew'. Mengzi also argued that the Mohist position is ultimately incoherent. Both Confucius and Mozi agreed that the Way is dictated by Heaven, a more or less anthropomorphic higher power. But human nature is implanted in humans by Heaven, so there can be no justification for morality other than what is implicit in our Heaven-given nature. In short, there is only one foundation

for the Way (our innate dispositions, which favour our friends and relatives), but the Mohists act as if there were a second one (the doctrine of impartial caring, which warps our nature).

Yang Zhu, the other major critic of Confucianism during Mengzi's era, was an egoist. We are naturally self-interested, Yang Zhu claimed, and both Confucianism and Mohism pervert our nature by demanding that we sacrifice ourselves for others. Mengzi agreed with Yang Zhu that Mozi's philosophy ignores the constraints that human nature places on morality. But where Yang Zhu went wrong, according to Mengzi, was in the mistaken belief that there is nothing to human nature other than our self-interested desires. As the thought experiment of the child-at-the-well suggests, compassion for other humans is part of human nature. Mengzi also argues that humans have a sense of shame that can at least compete with our self-interested motivations. As evidence, he notes that even beggars who are barely surviving day-to-day are ashamed to accept handouts given with contempt. In short, both

Mozi's impartial caring and Yang Zhu's egoism are indefensible, because both assume an impoverished conception of human nature. Mozi ignored our innate partiality toward friends and family, while Yang Zhu ignored the moral emotions that clearly are a part of our nature.

Mengzi does not naively assume that all humans are fully virtuous. He acknowledges that our innate compassion and sense of shame are only incipient. We often fail to have compassion for those we should, or fail to be ashamed of what is genuinely despicable. Using an agricultural metaphor, he refers to our innate dispositions toward virtue as 'sprouts'. This metaphor is carefully chosen. The sprout of a peach tree cannot bear fruit, but it has an active tendency to develop into a mature, fruit-bearing tree if given good soil, the right amounts of sun and rain, and the weeding of a prudent gardener. Similarly, the 'sprout of benevolence' – manifested in our spontaneous feeling of alarm and compassion for the child about to fall into a well – and the 'sprout of righteousness' – manifested in a beggar's disdain to

accept a handout given with contempt – are not fully formed, but can develop into genuine virtues given the right environment and cultivation.

How do we make sure that our moral sprouts bloom into actual virtues? Ethical cultivation is a topic that has been neglected by most Anglo-American philosophers in the past century, who have tended to focus on more abstract, and less ‘messy’, conceptual problems.

Classical Western philosophers such as Plato and Aristotle did discuss ethical cultivation; however, Mengzi’s view on this topic seems more plausible in many ways. Aristotle said that human nature is neither good nor evil, but it allows us to be habituated to virtue.

However, Aristotle emphasised that virtue requires doing the right thing out of the right motivation. If we are not innately good, how can habituation, becoming accustomed to *doing* the right thing, ever give us the right motivation? It seems that habituation can give us, at most, behavioural *compliance* with virtue, not virtue itself.

In contrast, Plato argued that our souls innately love the good, and retain a dim knowledge of the transcendent truths they were exposed to before they were embodied. The way to purify the soul and recover the knowledge of these truths, Plato claimed, is by the study of pure mathematics and philosophy. This theory of cultivation as recollection explains how we can act with the right motivations from the very beginning of moral cultivation. But Platonic ethical cultivation involves giving up our ordinary attachments to our family and an almost ascetic indifference to our physical bodies. Plato summarised the implications of his view by stating that ‘the one aim of those who practise philosophy in the proper manner is to practise for dying and death’, because he strives to transcend his sensual desires and attachment to his body. In contrast, Mengzi’s suggestion that the path of ethical cultivation is through rich commitments to family, friends and other individuals in our community provides a much more appealing view of the goal of human life.

Mengzi recognised that humans are partly responsible for their own ethical development, but (like Plato and Aristotle) he held that society should create an environment conducive to virtue. He advised rulers that their first task is to make sure that the common people's physical needs are met. To punish the people when they steal out of hunger is no different from setting traps for them, according to Mengzi, and he offered detailed, practical advice on almost every aspect of government policy, from tax rates to farm management. In addition, Mengzi made explicit that a ruler who cannot provide for the needs of the common people has no legitimate claim to authority. He asked one ruler what he would do if one of his subordinates was bad at his job. The ruler replied: 'Discharge him.' Mengzi then asked what should be done if his own kingdom were in disorder. The ruler, clearly seeing what this implied about his own legitimacy, abruptly changed the topic.

Once the people's basic needs were met, Mengzi suggested that they should be ethically educated. Later

Confucians envisioned two levels of education, the 'Lesser Learning' and the 'Great Learning'. All children should participate in the Lesser Learning, which teaches the fundamentals of morality and etiquette, along with reading, writing, arithmetic and some practical skills. Promising students, regardless of their social background, go on to the Great Learning, in which they learn the 'why' behind the 'what' of morality.

Mengzi's vision of the Great Learning is suggested by a much-discussed dialogue he had with King Xuan of the state of Qi. The king's subjects were suffering because he taxed them excessively to pay for his own luxurious lifestyle and to fund his wars of aggression against other states. Nonetheless, Mengzi told the king that he had the capacity to be a great ruler and gave the following incident as his justification. The king had been sitting up in his royal hall when he'd seen someone leading an ox through the courtyard below. He asked where it was being led and was told it was to ritual slaughter. In reply, the king said:

‘Spare it. I cannot bear its expression, like an innocent person going to the execution ground.’

The king confirmed that the story was true, but asked Mengzi what this had to do with being a great ruler. Mengzi replied:

In the present case, your kindness is sufficient to reach animals, but the benefits do not reach the commoners. Why is this case alone different? ... Hence, Your Majesty's not being a good king is due to not acting; it is not due to not being able. ... Hence, if one extends one's kindness, it will be sufficient to care for all within the Four Seas. If one does not extend one's kindness, one will lack the wherewithal to care for one's own wife and children. That in which the ancients greatly surpassed others was nothing else than this: they were simply good at extending what they did.

It is clear that Mengzi was suggesting that the king should ‘extend’ his compassion from the ox being led to slaughter to his own subjects. But what precisely does ‘extend’ mean in this context?

There are three major lines of interpretation. One suggestion is that ‘extend’ refers to a kind of logical inference. The king showed compassion for the suffering of the ox (Case A), and his subjects are also suffering (Case B), therefore the king ought to, as a matter of logical *consistency*, prevent the suffering of his subjects just as he prevented the suffering of the ox.

Another interpretation is that Mengzi merely wanted to show the king that he was *capable* of feeling compassion for his subjects (Case B), since he was capable of feeling compassion for an ox (Case A), which is not even human. Perhaps the king was one of those fooled by the teachings of Yang Zhu into believing that only self-interest is natural, so he needed a vivid reminder of his own ‘sprout of benevolence’.

A third interpretation (defended by the moral philosopher David Wong of Duke University in North Carolina) is that Mengzi was trying to frame the suffering of the king’s people in a way that would enable the king to psychologically project his compassion from the ox to the

people. In other words, Mengzi wanted to lead the king to see, not just the ox, but each of his own suffering subjects, as ‘like an innocent person going to the execution ground’. If this last view is correct, then moral education is an extremely subtle and context-sensitive task, more like teaching an appreciation for literature than teaching someone how to follow a set of rules. Perhaps unsurprisingly, Confucians such as Mengzi have emphasised the importance of studying poetry and history in educating a person’s moral sense.

Some aspects of Mengzi’s thought are no longer plausible for us today. For example, he believed that the precise details of the ritual practices and etiquette of his particular culture are hard-wired into our nature. However, the extent to which ancient Chinese debates over human nature parallel 20th-century psychological theories is striking. Skinnerian behaviourism is similar to Mozi’s view that human motivations are almost infinitely malleable, and so can be adjusted to be socially useful. Yang Zhu’s position finds its counterpart in the former fad for thinking that

evolutionary theory dictates an egoistic conception of human nature.

However, as the psychologist Martin L Hoffman of New York University explains in his book² *Empathy and Moral Development* (2000), developmental psychology supports the claim that humans do indeed have an innate tendency toward compassion. Moreover, this innate tendency is sprout-like (to use Mengzi’s vocabulary), in that it is incipient and requires socialisation and cultivation to develop into a genuine virtue. In his book³ *The Geography of Morals* (2016), Owen Flanagan of Duke University notes that Mengzi likewise anticipates the view that humans think in terms of distinct ‘moral modules’. The moral modularity thesis (developed⁴ by Jonathan Haidt at New York University, among others) suggests that humans are hard-wired to approach ethics in terms of care, loyalty, fairness, respect for authority, and sanctity. Compare this with Mengzi’s claim that humans are endowed with ‘four hearts’ of benevolence (manifested in compassion for others), righteousness (expressed in disdain

to do what is shameful), ritual propriety (which Mengzi connects with both deference and respect), and wisdom. Wisdom is the only ‘heart’ that is not associated with a ‘module’. But Mengzi emphasises it because it is crucial for any virtuous person to be able to engage in deliberation about the best means to achieve the ends provided by the other ‘hearts’.

What is ethical deliberation like? Two paradigms have dominated modern Western accounts of moral reasoning: the application of rules, and the weighing of consequences. Both paradigms treat moral thinking as analogous to scientific reasoning, either in being law-like or in being quantitative. The former is most commonly associated with Kantian ethics and the latter with utilitarianism. However, Mengzi’s view of moral reasoning seems closer to that of Aristotle, who warned that it is wrong to seek the same level of precision in ethics that one expects in physics or mathematics. A rival philosopher asked Mengzi whether propriety requires that unmarried men and women not touch hands. When Mengzi acknowledged that it does,

his interlocutor triumphantly asked: ‘If your sister-in-law were drowning, would you pull her out with your hand?’ Mengzi’s opponent obviously thought that he had Mengzi trapped, but Mengzi replied: ‘Only a beast would not use his hand to pull out his sister-in-law. It is propriety that men and women not touch hands, but to pull her out when she is drowning is discretion.’ This is representative of Mengzi’s approach to ethics, which emphasises the cultivation of virtues that allow one to respond flexibly and appropriately to fluid and complex situations.

In the 1300s, the *Mengzi* became one of the Four Books students were required to study for the civil service examinations, which were the primary route to wealth, prestige and power in imperial China. Consequently, generations of students literally committed the text to memory up until almost the end of the last imperial dynasty in 1911. During this period, the *Mengzi* and the rest of the Four Books played a role in Chinese culture analogous to the Bible in European thought, permeating all aspects of intellectual and spiritual life.

Conservatives cited the *Mengzi* to support the status quo, political reformers argued that society had lost sight of the true meaning of its teachings, and countless people sought to transform their personal lives through its guidance.

To this day, many phrases from *Mengzi* are common idioms, including ‘to climb a tree in search of a fish’ (to use the wrong method), and ‘those who ran away 50 feet laughing at those who ran away 100 feet’ (hypocritically criticising others). However, when China suffered under Japanese and Western imperialism in the 19th and early 20th centuries, modernisers blamed Confucianism for their country’s weakness. The denigration of Confucianism intensified after Mao Zedong led the Communists to victory in China’s civil war: Confucianism was rejected as part of China’s decadent ‘feudal’ past.

Since the death of Mao in 1976, China’s government has moved in a much more moderate direction. China today is Communist in name only, and visitors to Chinese cities find luxurious malls stocked with

high-end consumer goods. Since so few people believe in the old ideals of Maoism, there is a felt need to find new shared values. *Insights into the Analects* (2006) by Yu Dan, professor of media studies at Beijing Normal University, became a surprise bestseller, reflecting the hunger of the Chinese people for positive portrayals of traditional thought. The government also seems to see the wisdom of *Mengzi*’s comment that if the people ‘are full of food, have warm clothes, and live in comfort but are without instruction, then they come close to being animals’. Consequently, the president Xi Jinping has been increasingly touting the value of Confucianism, routinely quoting both Confucius and *Mengzi* in his speeches. (His references to Confucian texts have even been anthologised in *Xi Jinping: How to Read Confucius and Other Chinese Classical Thinkers*.)

To a great extent, Xi’s invocations of Confucianism are as opportunistic as many Western politicians’ references to the Bible. Confucianism is less important for its actual content than as a symbol of ‘our’ identity (to which all

Chinese should be loyal). However, there is a danger in telling people to revere Confucius and Mengzi. Confucianism, like every major spiritual worldview, has sometimes been co-opted by those seeking to maintain the status quo. But both Confucius and Mengzi were critics of self-serving governments, and both advocated rule by persuasion rather than by force. If students start reading them seriously, who knows what reformist forces may be unleashed?

From: <https://aeon.co/essays/the-influential-confucian-philosopher-you've-never-heard-of>

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- <http://philosophyfaculty.ucsd.edu/faculty/rarneson/Courses/NAGELAutonomyandDeontology.pdf>
 - <http://catdir.loc.gov/catdir/samples/cam032/99029669.pdf>
 - <https://global.oup.com/academic/product/the-geography-of-morals-9780190212155?cc=gb&lang=en&>
 - <http://evolution.binghamton.edu/evos/wp-content/uploads/2009/08/Haidt2.pdf>

Welcome to the first issue
of Walden Pond! This is the
back, turn it over and get
reading.

Thanks for being an Alpha
tester. I'm really interested
your experience of using
this service, and especially
in your experience of
reading this zine.

Let me know when you've
had a bit of time to read. I'd
like to talk about how you
found it. What was good
and what was a pain?

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