We choose to go to the moon in this decade and do the other things, not because they are easy, but because they are hard, ...[JFK]

William Bradford, speaking in 1630 of the founding of the Plymouth Bay Colony, said that all great and honorable actions are accompanied with great difficulties, and both must be entered and overcome with answerable courage.  [JFK at Rice University]

https://er.jsc.nasa.gov/seh/ricetalk.htm
Ideas and opinions expressed in the following pages are solely due to the author and do not represent the views of any institution or group with which the author may be affiliated.

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Transforming Vision into Reality – The Journey of Purpose from Ideas to Implementation

Thoughts

- This will be fun
- This is harder than I thought
- This is going to be a lot of work
- This sucks I have no idea what I'm doing
- Dark swamp of despair
- What was I thinking?

Belief/Persistence
Family+Humour

Wow
Hey!
Hmm...
Quick, let's call it a day and say we learned something
Ok but it still sucks

Purpose
A Sense of Purpose

“And so, my fellow Americans: ask not what your country can do for you - ask what you can do for your country.”

John Fitzgerald Kennedy
Mimicry is NOT the Purpose – We do not wish to emulate these countries
<table>
<thead>
<tr>
<th>Country</th>
<th>xEarth Requirement</th>
<th>Footprint Per Person</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kuwait</td>
<td>8.9 global hectares</td>
<td>5.1</td>
</tr>
<tr>
<td>Australia</td>
<td>8.3</td>
<td>4.8</td>
</tr>
<tr>
<td>United Arab Emirates</td>
<td>8.1</td>
<td>4.7</td>
</tr>
<tr>
<td>Qatar</td>
<td>7.0</td>
<td>4.0</td>
</tr>
<tr>
<td>United States of America</td>
<td>6.8</td>
<td>3.9</td>
</tr>
<tr>
<td>Canada</td>
<td>6.6</td>
<td>3.8</td>
</tr>
<tr>
<td>Sweden</td>
<td>6.5</td>
<td>3.8</td>
</tr>
<tr>
<td>Bahrain</td>
<td>6.2</td>
<td>3.6</td>
</tr>
<tr>
<td>Trinidad and Tobago</td>
<td>6.0</td>
<td>3.5</td>
</tr>
<tr>
<td>Singapore</td>
<td>5.9</td>
<td>3.4</td>
</tr>
</tbody>
</table>

Note: The xEarth requirement is the amount of area that would be required to support 7 billion people if everyone lived like the average person in that country. The footprint per person is the amount of area required to support an individual. The sources for these data points are listed below:

- https://persquaremile.com/2012/08/08/if-the-worlds-population-lived-like/
Mimicry is NOT the Purpose – We do not wish to emulate these cities

Estimated Monthly Cost of Living

<table>
<thead>
<tr>
<th>City</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAN FRANCISCO, CA, UNITED STATES</td>
<td>$4,612</td>
</tr>
<tr>
<td>NEW YORK, NY, UNITED STATES</td>
<td>$4,207</td>
</tr>
<tr>
<td>GENEVA, SWITZERLAND</td>
<td>$3,314</td>
</tr>
<tr>
<td>HONG KONG, HONG KONG</td>
<td>$3,244</td>
</tr>
<tr>
<td>LONDON, UNITED KINGDOM</td>
<td>$3,228</td>
</tr>
<tr>
<td>DUBAI, UNITED ARAB EMIRATES</td>
<td>$3,006</td>
</tr>
<tr>
<td>SINGAPORE, SINGAPORE</td>
<td>$2,940</td>
</tr>
<tr>
<td>HONOLULU, HI, UNITED STATES</td>
<td>$2,906</td>
</tr>
<tr>
<td>SYDNEY, AUSTRALIA</td>
<td>$2,888</td>
</tr>
<tr>
<td>REYKJAVIK, ICELAND</td>
<td>$2,873</td>
</tr>
<tr>
<td>DOHA, QATAR</td>
<td>$2,819</td>
</tr>
<tr>
<td>OSLO, NORWAY</td>
<td>$2,606</td>
</tr>
<tr>
<td>LUXEMBOURG, LUXEMBOURG</td>
<td>$2,476</td>
</tr>
<tr>
<td>DUBLIN, IRELAND</td>
<td>$2,374</td>
</tr>
<tr>
<td>COPENHAGEN, DENMARK</td>
<td>$2,360</td>
</tr>
<tr>
<td>NASSAU, BAHAMAS</td>
<td>$2,307</td>
</tr>
<tr>
<td>VENICE, ITALY</td>
<td>$2,277</td>
</tr>
<tr>
<td>AUCKLAND, NEW ZEALAND</td>
<td>$2,228</td>
</tr>
<tr>
<td>TOKYO, JAPAN</td>
<td>$2,208</td>
</tr>
</tbody>
</table>
One Purpose – the quest for an ethical “normal” standard of life and living

Don’t get bogged down by the semantics of normal, focus on the context of normal.
Planer Earth requirement to sustain standard of living for 7 billion people (country as example)

India: × 1.9

Uganda: × 2.5

China: × 1.1

United States of America: × 4.1

Costa Rica: × 1.4

United Arab Emirates: × 5.4

Sources:
- https://persquaremile.com/2012/08/08/if-the-worlds-population-lived-like/
This, too, is United States of America. Is this a “standard” the world aspires to emulate? Re-think!

To “live” like this we need 4 planet earth equivalent?

https://www.foreignaffairs.com/articles/world/2016-03-28/wealthier-world-poorer-nation?
Left to its own devices, the task of development is generally undertaken by corporate behemoths (energy, roads, housing) who invest and reap very high premium returns by creating infrastructures necessary for societies to grow.

General inaction by ordinary people and laissez faire activities by well-intentioned organizations is a carte blanche opportunity for corporations to seed and harvest maximum profit in order to concentrate global wealth in the hands of very few (according to Oxfam (2017), half of the global wealth is owned by 8 individuals).

Hence, the need for common people to grow ethical organizations which can structure collective crowd funding as micro-investments to drive comprehensive change for millions. Ownership of infrastructure, commodities and services generating life-cycle micro-revenues offers lifelong return on investment, for the masses (micro-investors). Thus, equity for the impoverished and for the public.
India has launched its first grid-scale battery storage system amid ambitious plans to integrate 175 gigawatts of renewable energy into the power system by 2022.

Commissioned and operated by Tata Power Delhi Distribution, the 10-megawatt Advancion energy storage array is a joint project by Mitsubishi and the U.S. energy storage company AES.

Designed for peak load management, the project couldn’t have come at a better time for India, said to Logan Goldie-Scot, an energy storage expert at Bloomberg New Energy Finance.
The thrust of the initiative is to invest in economically impoverished societies using a crowd-funded approach. Micro-investments (US$1,000 – US$10,000) from large group of investors (100,000 to 100,000,000) may generate substantial capital to seed comprehensive change and pave multiple self-sustaining paths using tools and technologies that the investment will enable. Investors shall pursue ethical profitability guidelines to obtain ROI from their investment using a combination of micro-revenue models and partial as well as equitable long-term ownership of infrastructure, utilities and commodities or other types of business opportunities which may arise as a result of the investment and legally allowed by nations.
Principle of Purpose

PURPOSE is a tool for restoration of decent quality of life in impoverished communities and simultaneously, a market development initiative.

PURPOSE subscribes to the ethical ethos that philanthropy and charity co-exists with almost-philanthropy and almost-charity versions where the “giving” mind set of individuals may “give” even more due to a potential for small financial return. PURPOSE advocates “giving” of the type which leads to eventual growth. Hence, the “giver” segues to “investor” with a potential for long term micro-profitability.

We may not build and replicate self-sustaining societies which can stand the test of time just by taking unidirectional donations from the affluent and the fortunate. We must build societies in impoverished nations with a comprehensive plan to drive the growth of their intrinsic economic engines and build capacity to trigger consumption in order to serve as future markets. In the process, the communities must be able to improve their quality of life and return value to the investors who “gave” the money which paved the path for these communities for their exodus from hopelessness and on to the journey of hope.
Micro-investors are expected to understand that this initiative is a combination of multiple models, taken in part and perhaps reinvented. This initiative (referred to as PURPOSE) is in part social business, in part a limited-for-profit benevolent scheme, a nano-philanthropy for ethical micro-profitability, diversely distributed cooperative ownership and investment from people with a long term view of development. Investors who believe that if we wish to sell cars, we must help to build roads. Stop polishing the chrome and help tune the engine.

Products and services from affluent nations (20% of the world) must grow markets. The rest of the world (80%) cannot pay for the products and services if 5.6 billion people struggle to exist on less than US$10 per day. Businesses able and willing to adapt and adopt principles and practice of mobile digital transformation may grow markets where micro-payments and micro-revenue models are likely to evolve as the norm and continue for the long term.
Micro-investors will own a certain fraction of the enterprise depending on their investment. The premise is to use the collective financing from micro-investments to form a corporation to start businesses, in phases. In the first stage with a specific focus. The business will sell one or more services, locally. Revenue from sales must eventually become sustainable and profitable, within ethical limits. Micro-investors may receive their principle investment and be a part of a profit-sharing scheme. The latter will generate a long-term flow of micro-earnings for micro-investors. Life-long micro-earnings may lead to cumulative macro-profit but within certain ethical limits. The ownership of the enterprise will be distributed over thousands of individuals and it is expected to benefit thousands or even millions of people. The vigilance to pursue an ethical ROI assures that gains from the enterprise sales may be re-invested in the society to develop other services based on a comprehensive solutions approach to improve the quality of living above a threshold. It is quite an ambitious goal of this effort to provide, albeit in part, the social activation energy necessary to catalyze industrial economic engines to take root in impoverished societies and convert the communities from chronic cost centers to profit centers.
Purpose

Ethical for-profit cooperative to implement socio-economic tools for development
US and EU pursuits ?
Thermometer pacifier for smartphones

Measure your baby’s temperature from your smartphone

BUY NOW

“This may change parenting forever”
### Deals and Dealers of Lightning

<table>
<thead>
<tr>
<th>Rank</th>
<th>Deals</th>
<th>Firm</th>
<th>Deals 2015/2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>20</td>
<td>Bank of America Merrill Lynch</td>
<td>10</td>
</tr>
<tr>
<td>2</td>
<td>13</td>
<td>Morgan Stanley</td>
<td>5</td>
</tr>
<tr>
<td>3</td>
<td>49</td>
<td>Rothschild</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>13</td>
<td>Credit Suisse</td>
<td>6</td>
</tr>
<tr>
<td>5</td>
<td>1</td>
<td>Ducera Partners</td>
<td>k. A.</td>
</tr>
<tr>
<td>6</td>
<td>28</td>
<td>JP Morgan</td>
<td>1</td>
</tr>
<tr>
<td>7</td>
<td>19</td>
<td>Goldman Sachs</td>
<td>4</td>
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<tr>
<td>8</td>
<td>21</td>
<td>Deutsche Bank</td>
<td>3</td>
</tr>
<tr>
<td>9</td>
<td>20</td>
<td>Lazard</td>
<td>9</td>
</tr>
<tr>
<td>10</td>
<td>10</td>
<td>Barclays</td>
<td>17</td>
</tr>
</tbody>
</table>

Source: Thomson Reuters
Thinking Big? Acting Boldly?

“We will have to double agricultural output by 2050” Norman Borlaug, 2005

<table>
<thead>
<tr>
<th>Buyer</th>
<th>Takeover candidate</th>
<th>Location</th>
<th>US$ Billion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bayer</td>
<td>Monsanto</td>
<td>United States</td>
<td>64.7</td>
</tr>
<tr>
<td>Daimler-Benz</td>
<td>Chrysler</td>
<td>United States</td>
<td>38.6</td>
</tr>
<tr>
<td>Mannesmann</td>
<td>Orange</td>
<td>United Kingdom</td>
<td>35.4</td>
</tr>
<tr>
<td>Deutsche Telekom</td>
<td>Voicestream</td>
<td>United States</td>
<td>34.6</td>
</tr>
<tr>
<td>HeidelbergCement</td>
<td>Hanson</td>
<td>United Kingdom</td>
<td>18.6</td>
</tr>
<tr>
<td>Merck KGaA</td>
<td>Sigma-Aldrich</td>
<td>United States</td>
<td>17.0</td>
</tr>
<tr>
<td>E.ON</td>
<td>Endesa Europa</td>
<td>Spain</td>
<td>16.9</td>
</tr>
<tr>
<td>Linde</td>
<td>BOC</td>
<td>United Kingdom</td>
<td>15.7</td>
</tr>
<tr>
<td>Deutsche Börse</td>
<td>London Stock</td>
<td>United Kingdom</td>
<td>14.3</td>
</tr>
<tr>
<td>Bayer</td>
<td>Merck &amp; Co*</td>
<td>United States</td>
<td>14.2</td>
</tr>
</tbody>
</table>
Paradox or Paradigm

*it is not a rhetorical question*
Today, the United States spends over $218 billion – 1.3% of GDP – growing, processing, transporting, and disposing of food that is never eaten.

- Farms: $15B
- Manufacturers: $2B
- Consumer-facing businesses: $57B
- Homes: $144B

52.4 million tons sent to landfill + 10.1 million tons on-farm loss = 62.5 million tons food wasted in the U.S. every year

US and EU dreams?
Gartner: Emerging Digital Industrial Economy Built On Internet Of Things Will Add Trillions In Economic Value

$14.4 trillion — Est. value of the global Internet of Things market by 2022

$3.7 trillion from improved customer experience
$3.0 trillion from reduced time to market
$2.7 trillion in supply chain and logistics
$2.5 trillion in reduced costs
$2.5 trillion in increased employee productivity
World minus US and EU

Poverty follows the Pareto Principle 80/20
<table>
<thead>
<tr>
<th>Country</th>
<th>GDP per Capita</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thailand</td>
<td>$10,000</td>
</tr>
<tr>
<td>Cuba</td>
<td>$9,900</td>
</tr>
<tr>
<td>Tunisia</td>
<td>$9,700</td>
</tr>
<tr>
<td>Dominican Republic</td>
<td>$9,600</td>
</tr>
<tr>
<td>Timor-Leste</td>
<td>$9,500</td>
</tr>
<tr>
<td>Cook Islands</td>
<td>$9,100</td>
</tr>
<tr>
<td>Jamaica</td>
<td>$9,100</td>
</tr>
<tr>
<td>China</td>
<td>$8,800</td>
</tr>
<tr>
<td>Ecuador</td>
<td>$8,700</td>
</tr>
<tr>
<td>Maldives</td>
<td>$8,500</td>
</tr>
<tr>
<td>Turkmenistan</td>
<td>$8,500</td>
</tr>
<tr>
<td>Montserrat</td>
<td>$8,500</td>
</tr>
<tr>
<td>Belize</td>
<td>$8,400</td>
</tr>
<tr>
<td>Bosnia and Herzegovina</td>
<td>$8,300</td>
</tr>
<tr>
<td>Palau</td>
<td>$8,100</td>
</tr>
<tr>
<td>Guyana</td>
<td>$8,000</td>
</tr>
<tr>
<td>American Samoa</td>
<td>$8,000</td>
</tr>
<tr>
<td>Albania</td>
<td>$8,000</td>
</tr>
<tr>
<td>Namibia</td>
<td>$7,800</td>
</tr>
<tr>
<td>El Salvador</td>
<td>$7,700</td>
</tr>
<tr>
<td>Ukraine</td>
<td>$7,600</td>
</tr>
<tr>
<td>Tonga</td>
<td>$7,500</td>
</tr>
<tr>
<td>Algeria</td>
<td>$7,500</td>
</tr>
<tr>
<td>Kosovo</td>
<td>$7,400</td>
</tr>
<tr>
<td>Saint Pierre and Miquelon</td>
<td>$7,000</td>
</tr>
<tr>
<td>Egypt</td>
<td>$6,600</td>
</tr>
<tr>
<td>Bhutan</td>
<td>$6,500</td>
</tr>
<tr>
<td>Sao Tome and Principe</td>
<td>$2,300</td>
</tr>
<tr>
<td>Myanmar</td>
<td>$2,100</td>
</tr>
</tbody>
</table>

- 5.6 billion (80% of humanity) lives on less than $10 a day
- 1.6 billion live without electricity
- 1.1 billion inadequate access to water
- 1.0 billion children live in poverty (2.2 billion total children)

The Elusive Quest for Growth in the Tropics

WILLIAM EASTERLY
Migrants from the Zinder region of Niger collecting water after a long drive through the desert. Josh Haner/The New York Times
Another well-intentioned initiative?

YES
Comprehensive Solutions for Socio-Economic Growth

• Build infrastructure to catalyze self-sustaining societies at an unit rate of 0.1 million+ (population/people) for each effort
Tool
100,000 Individuals investing 100,000 pennies, each

micro-investments, micro-earnings, macro-revenue
Approach
Comprehensive Solutions for Socio-Economic Growth

- Build infrastructure for self-sustaining society (large scale)
- Complete package for development (not isolated solutions)
- Investors to own infrastructure, utilities and commodities
- Return on investment using micro-revenue earnings model
- Partnership with government, industry & provider networks
- Focus on blocks (adaptable priority, weights, modifications)
- ROI from micro-revenue earnings (distributed ownership)
- General public as investors (through crowd funding tools)
Goal
Change

- Energy
- Food
- Water
  - Irrigation, Sanitation

- Health
- Education
- Communication
  - Telco, Transport, Roads

- Housing
- Industry
- Finance

- Society
- Sustainability
- Entrepreneurship

DIGNITY
EQUITY
BEAUTY

Lives
Outcome
Can $1,000 from 100,000 investors benefit 10,000,000 lives?
Why
767 million – number of people who live below $1.90 per day (2013)

Is the Gini Coefficient still a relevant metric?

Haves (left) vs Have-nots (right) – In 2000, top 2% owned half of the total global wealth (reported in 2006). If that is correct then about 140 million people (assuming global population of 7 billion) owned half of the world’s wealth. About 15 years later, only 62 people (?) own half of the world’s wealth! Shall we extrapolate what might happen in the near term (2020) or medium term (2050)?
World's eight richest people have same wealth as poorest 50%

A new report by Oxfam warns of the growing and dangerous concentration of wealth

Economy for the 99 percent

Just 8 men own same wealth as half the world

16 January 2017
Infrastructure, commodities, utilities, roads are increasingly owned by gigantic multinationals. Drives deeper the chasm between the haves and have-nots. Distributing ownership to the general public and abiding by ethical profitability standards may help lift many boats and communities.
A person willing to fly in the face of reason, authority, and common sense must be a person of considerable self-assurance. Since he occurs only rarely, he must seem eccentric (in at least that respect) to the rest of us. A person eccentric in one respect is often eccentric in others.

Consequently, the person who is most likely to get new ideas is a person of good background in the field of interest and one who is unconventional in his habits. (To be a crackpot is not, however, enough
Any developing country with sufficient political stability to benefit from investment and keen to support their socio-economic transformation in cooperation with global partners. Likely countries may be from Africa, South America, SE Asia.
Concerns about National Governance

Who

- Initial starters
  - ME
  - YOU

Collaborators
- Organizations
- Government
- Academia
- Industry
When to start

• Amount raised
  • $10 million
How to

- Energy
- Food
- Water
  - Irrigation, Sanitation
- Health
- Education
- Communication
  - Telco, Transport, Roads
- Housing
- Industry
- Finance
- Society
- Sustainability
- Entrepreneurship

DIGNITY
EQUITY
BEAUTY

$1,000 investment from 100,000 investors to benefit millions
Crowds are, in a word, big.

Bringing together people through digital networks to underwrite enterprises, or crowdfunding, is expected to surpass venture capital financing as a source of early stage finance this year (2016) at more than $60 billion. These statistics include lending as well as equity investing, so are a little deceptive – perhaps it’s best to think of it as crowdfunding filling the estimated $2.6 trillion credit gap globally. Although the FCA made a recent announcement about pulling in the reins, it appears crowdfunding continues to flourish.

Equity crowdfunding, the best comparable for VC and angel money, is more like $3.5 to $4 billion in 2016 according to Forbes – still an impressive number for an industry that didn’t exist a few years ago.

Forbes goes on to point out that women are particularly good at crowdfunding – notable when we look at my colleague Fiona Murray’s work showing 5% to 10% of VC funding goes to women, even though they make up half the population. Her scientifically controlled gender-and-funding study showed a preference for male presenters 60-70% of the time. Crowdfunding could remediate that situation.

I and my colleagues Jake Cohen and Cate Reavis at MIT Sloan, and John D’Agostino at DMS Governance, have written a note that we will be publishing shortly on equity crowdfunding. It caused me to spend some time thinking about where crowdfunding may cross other streams of research for even bigger effect.

Op-Ed by David Shrier

Yes, we can!

Let’s pull the camera back a bit.

Prof. Alex Pentland, faculty director of MIT Connection Science, has studied the questions of social influence and collective intelligence for decades. The new discipline he is pioneering, Social Physics, enables the ability understand, predict and influence behavior at scale. He and his colleagues have already shown the ability to improve trading performance of a network of financial traders by as much as 50% through optimization of the flow of ideas through the network. More recent, unpublished, research indicates we might even be able to harness this tuned network intelligence to correctly predict the future prices of traded securities to within a fractional percentage of the correct answer.

What would happen if we brought these two ideas – crowdfunding on the one hand and social physics on the other – together?

Could we activate crowds, societies, for social benefit?

Could we get people focused not only on talking about big problems but actually doing something about them, directing needed money to social enterprises and scientific research alike?

What if we also introduced new forms of digital governance along the way, so the decisions as to which ideas to pursue would be governed by collective intelligence?

Sites like GoFundMe show people are already willing to underwrite ideas with societal benefits, not just commercial enterprises.
Why Business Must Grow

PURPOSE prefers not to be a band-aid. PURPOSE will fail, if we fail to trigger socio-economic growth.
Why invest?

To make money you must grow markets within the norms of ethical globalization
What determines market?

Working-age population earns/spends money
What type of market?

Massive economies of scale to earn macro-revenue over long term from each transaction micro-payment
Think different. Think digital. There are no longer products to sell. Think life-long service life cycles.
What type of services?

Everyday necessities for mass consumption including infrastructure, commodities and basic social needs (healthcare, education, housing and community)
What is key for services?

Convergence
Nevertheless, a meeting of such people may be desirable for reasons other than the act of creation itself.

No two people exactly duplicate each other’s mental stores of items. One person may know A and not B, another may know B and not A, and either knowing A and B, both may get the idea—though not necessarily at once or even soon.

Furthermore, the information may not only be of individual items A and B, but even of combinations such as A-B, which in themselves are not significant. However, if one person mentions the unusual combination of A-B and another the unusual combination A-C, it may well be that the combination A-B-C, which neither has thought of separately, may yield an answer.
What is a key service?

Energy
What is the key indicator?

Demographics
Where are the markets?

THE LONG-TERM DECLINE IN PRIME-AGE MALE LABOR FORCE PARTICIPATION

June 2016
Where “was” the market?

Prime-Age Male Labor Force Participation

Where **were** the markets?

Figure 5: Prime-Age Male Nonemployment Rates Across the OECD

Percent

Source: OECD; CEA calculations.

India – working age population almost 1 billion by 2020 or one third of global workforce (USA – working age population (total workforce) approx. 150 million in the same period)

Source: UN
China – working age population about 900 million in 2020 – data on the left of the page

EU28 – working age population total 64 million in 2020 – data on the right of the page

Source: NBS, Renmin University of China

Where are future markets?

Median age by country (CIA World Factbook 2014)
TEMPORARY CONCLUSION
What is our “to do” list?

- Energy
- Food
- Water
  - Irrigation, Sanitation
- Health
- Education
- Communication
  - Telco, Transport, Roads
- Housing
- Industry
- Finance
- Society
- Sustainability
- Entrepreneurship

Elements of a Comprehensive Solutions Approach for Socio-Economic Restoration
Before we polish the chrome, we must tune the engine. Start by manufacturing energy (renewable, bio, solar, mobile nano-grid systems) and power distribution to the region.
The U.S. Department of Energy SunShot Initiative is a national effort to support solar energy adoption by making solar energy affordable for all Americans through research and development efforts in collaboration with public and private partners. SunShot funds cooperative research, development, demonstration, and deployment projects by private companies, universities, state and local governments, nonprofit organizations, and national laboratories to drive down the cost of solar electricity.
Trump administration silences the Department of Energy’s Sunshot team

President Trump has told the United States Department of Energy Sunshot team that they are not allowed to communicate any information to the public until political appointments are made to review all of said communications per a report from Samantha Page at ThinkProgress.

The directive was given at a staff meeting, according to the email sent Thursday morning, and came from Assistant Secretary of Energy Efficiency and Renewable Energy Steven Chalk. “I want to share that we are PROHIBITED from any social media post (from personal or business handles) regarding your work, attendance at any meeting, etc until further notice, per Steve Chalk, acting EE-1,” the email reads.

This action follows other actions by the President that might be perceived as Orwellian – requesting the EPA remove all Climate Change information (before a judge halted them) from their website and creating a new term – ‘alternative facts.’

https://electrek.co/2017/01/26/trump-silences-the-department-of-energys-sunshot-team/
Purpose

Ethical for-profit cooperative to implement socio-economic tools for development
A Reason To Believe in Purpose?
Could you predict a FEW of the biggest opportunities for business growth?
Could you predict the key growth opportunities for digital transformation?

- Health
- Education
- Telecommunication
Could you predict what is keeping us from accelerating the pace of progress?

**SEA**

S - Security (cybersecurity)

E - Equity (gender inequality)

A - Apathy (solipsistic bliss)

Please remind yourself about these two quotes – great opportunities are often brilliantly disguised as impossible situations and catastrophies or problems are immense opportunities in work clothes.
Tackling gender inequality could add $12tn to world economy, study finds

Researchers say extra GDP output could come from reforms, such as allowing more women in workforce in countries where they currently face restrictions.

The education of a boy may change the fate of a man. The education of a girl may change the destiny of a nation.

A woman working at a salt pan in Mumbai. Due to gender inequality, only 17% of India’s GDP comes from women. The figure is 40% in the US and western Europe. Photograph: Divyakant Solanki/EPA

Tackling gender inequality and boosting women’s opportunities in the labour market could add $12tn (£7.8tn) to annual global GDP over the next decade, according to new research.

Invest in your future

Purpose

The ideas and opinions are due to the author Dr Shoumen Palit Austin Datta [shoumen@mit.edu] and does not reflect the views of any organizations with which the author may be affiliated.
Invest in your life

When you are old
If these ideas are too big, too uncertain, too diffuse – would you refuse to lead?

Middle Income Household – Basic Needs Spending (2007-2014) – US Department of Labor

Health of Nations

If health is wealth then the risk of inaction is reduction in general wealth & well being.
Where to start?

The outrageous cost of assisted living facilities for seniors and elders are crippling lives for segments of society who are unable to endure the financial burden of geriatric care.
Ask yourself

How do I wish to be treated when I’m old
Ask yourself

What is the cost of my healthcare?
Health Spending 2015 GDP %

Switzerland
Germany
Sweden
France
Netherlands
Denmark
Belgium
Austria
Serbia
Norway
EU28
United Kingdom
Finland
Malta
Ireland
Italy
Spain
Portugal
Iceland
Slovenia
Bulgaria
Greece
Czech Republic
Luxembourg

US 17.5% GDP
$3.5 TRILLION

http://www.oecd.org/health/health-at-a-glance-europe-23056088.htm

www.cbo.gov/topics/health-care
Ask yourself

Who will pay for my healthcare?
Imminent Changes in the US Dependency Ratio (1940-2050)

Dependency ratios provide a way to examine the changing age structure of the younger as well as older populations. Dependency ratios are an indicator of the potential burden of the dependent population, approximated by those under 18 years and those 65 years and over, on those in the working-age population. The ratios are calculated by dividing the number of people in the dependent age groups by the number in the working ages and then multiplying by 100. [https://www.census.gov/prod/2014pubs/p25-1140.pdf]

Total dependency = \left( \frac{\text{Population under 18 years} + \text{Population 65 years and over}}{\text{Population 18 to 64 years}} \right) \times 100

Old-age dependency = \left( \frac{\text{Population 65 years and over}}{\text{Population 18 to 64 years}} \right) \times 100

Youth dependency = \left( \frac{\text{Population under 18 years}}{\text{Population 18 to 64 years}} \right) \times 100
US Demographics Age & Sex predictions for 2030-2050

Is the US healthcare cost sustainable? In 2015, almost $3 trillion or equivalent to 17.5% of US GDP

### Projected US Population - 2012 to 2050 (in thousands)

<table>
<thead>
<tr>
<th>Age</th>
<th>2012</th>
<th>2020</th>
<th>2030</th>
<th>2040</th>
<th>2050</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TOTAL</strong></td>
<td>313,914</td>
<td>333,896</td>
<td>358,471</td>
<td>380,016</td>
<td>399,803</td>
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<tr>
<td>Under 18 years</td>
<td>73,728</td>
<td>76,159</td>
<td>80,348</td>
<td>82,621</td>
<td>85,918</td>
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<tr>
<td>18 to 64 years</td>
<td>197,041</td>
<td>201,768</td>
<td>205,349</td>
<td>217,675</td>
<td>230,147</td>
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<tr>
<td><strong>65 years and over</strong></td>
<td>43,145</td>
<td>55,969</td>
<td>72,774</td>
<td>79,719</td>
<td>83,739</td>
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<tr>
<td>65 to 69 years</td>
<td>13,977</td>
<td>18,052</td>
<td>20,077</td>
<td>18,090</td>
<td>20,144</td>
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<tr>
<td>70 to 74 years</td>
<td>10,008</td>
<td>14,744</td>
<td>18,516</td>
<td>17,374</td>
<td>17,410</td>
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<tr>
<td>75 to 79 years</td>
<td>7,490</td>
<td>10,010</td>
<td>14,722</td>
<td>16,640</td>
<td>15,243</td>
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<tr>
<td>80 to 84 years</td>
<td>5,783</td>
<td>6,470</td>
<td>10,513</td>
<td>13,501</td>
<td>12,963</td>
</tr>
<tr>
<td>85 years and over</td>
<td>5,887</td>
<td>6,693</td>
<td>8,946</td>
<td>14,115</td>
<td>17,978</td>
</tr>
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</table>

<table>
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<tr>
<th><strong>PERCENT</strong></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TOTAL</strong></td>
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<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Under 18 years</td>
<td>23.5</td>
<td>22.8</td>
<td>22.4</td>
<td>21.7</td>
<td>21.5</td>
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<tr>
<td>18 to 64 years</td>
<td>62.8</td>
<td>60.4</td>
<td>57.3</td>
<td>57.3</td>
<td>57.6</td>
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<tr>
<td>65 years and over</td>
<td>13.7</td>
<td>16.8</td>
<td>20.3</td>
<td>21.0</td>
<td>20.9</td>
</tr>
<tr>
<td>65 to 69 years</td>
<td>4.5</td>
<td>5.4</td>
<td>5.6</td>
<td>4.8</td>
<td>5.0</td>
</tr>
<tr>
<td>70 to 74 years</td>
<td>3.2</td>
<td>4.4</td>
<td>5.2</td>
<td>4.6</td>
<td>4.4</td>
</tr>
<tr>
<td>75 to 79 years</td>
<td>2.4</td>
<td>3.0</td>
<td>4.1</td>
<td>4.4</td>
<td>3.8</td>
</tr>
<tr>
<td>80 to 84 years</td>
<td>1.8</td>
<td>1.9</td>
<td>2.9</td>
<td>3.6</td>
<td>3.2</td>
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<tr>
<td>85 years and over</td>
<td>1.9</td>
<td>2.0</td>
<td>2.5</td>
<td>3.7</td>
<td>4.5</td>
</tr>
</tbody>
</table>

Within a generation, China will have an older population than the United States.

Elderly (Aged 60 & Over), as a Percent of the Population in China and the United States, 1970-2050

- China
- United States

Elderly Share

<table>
<thead>
<tr>
<th>Year</th>
<th>China</th>
<th>U.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970</td>
<td>7%</td>
<td>14%</td>
</tr>
<tr>
<td>2010</td>
<td>12%</td>
<td>18%</td>
</tr>
<tr>
<td>2020</td>
<td>17%</td>
<td>22%</td>
</tr>
<tr>
<td>2030</td>
<td>24%</td>
<td>25%</td>
</tr>
<tr>
<td>2040</td>
<td>28%</td>
<td>25%</td>
</tr>
<tr>
<td>2050</td>
<td>32%</td>
<td>26%</td>
</tr>
</tbody>
</table>
Franz Fischler: “Europa steht vor dem Abgrund”
By 2030, ~200 million people in India are over 65 years
Citizens using Internet to interact with Public Authorities (OECD, 2012)
Affordable assisted living homes to treat elders with dignity, provide nursing care, predictive analysis using medical IoT, reduce acuity and hospitalization

• The central theme is to offer dignity for senior living at a cost that is bounded by ethical profitability

• Investors are to remain cognizant about bounded ethical profitability to make this home affordable

• Staff and professionals must be happy and adequately remunerated as opposed to minimum salaries

• In legal collaboration with regulatory bodies and institutions, we will use latest medical technologies

• Preventive care, predictive care and kinder-gentler geriatric care should be the goal of this effort

• All non-emergency non-hospital conditions are to be admitted in addition to assisted living needs

• Shall we turn away people who cannot pay? We will have to visit and re-visit this very thorny question

• Search for additional funding in the form of grants from local and global organizations will be pursued

• There are many reasons why individuals (crowd-funding investors) may not want to pursue this effort

• Many questions but not so many good answers to create a perfect plan (perfect is the enemy of good)

• In principle *Meraki* draws in part from the ethos of *Nirmal Hriday* but may use modern medical criteria

There are so many reasons why one shouldn’t start amorphous projects as “Purpose” or undertake the immensely difficult mission of “Meraki”

There are so many hurdles, so many things which can and will go wrong, so many reasons why you should not go out on the limb or invest a little

Success will never see the light of the day if we aren’t prepared to fail because we choose to live our lives in the comfort of our solipsistic bliss
Supply Chain of Risks Due to Lack of Action

Inequity is inevitable as an economic offshoot of opportunity mismanagement due to social choices and/or circumstances. OXFAM reports raise awareness, sells news time and serves a variety of good thing one may associate by stretching sensationalism. Three of the 8 mentioned in the latest report (Jan 16, 2017) are in the process of giving away their wealth. A fourth may follow suit, soon. This “wealth” is partially “paper” money. Therefore, this campaign, albeit noble, is pregnant with half truths. The end of inequity may be an asymptotic function. The growth of equitable approaches are in the hands of those who can afford the luxury of time to read a newspaper or meet for dinner or watch a movie – that is – about 1 billion people in the world. One tool in vogue is “crowd funding” but the driver must not be to “make a killing on the ROI” but to lift many boats without losing your own. The funding is not only for technology or gadgets but for the life-sustaining public goods, commodities for living and mundane elements necessary to fuel the very slow but sustainable growth of economies where it is needed the most. The dream is not a “killer app” but the penchant to find that “un-killer app” that may save a life, improve healthcare and increase access to preventive primary care. It has to be a thoughtful process, created, adapted and re-created, over and over, for communities in need, worldwide.
Still business as usual? Destiny of “Purpose” and the fate of “Meraki”
“James Bond of philanthropy.”

Charles F. Feeney is what you might call a low-key billionaire. About five years ago, he vowed to give away most of his fortune by 2016. And he has.

Altogether, Mr. Feeney has donated $8 billion to support higher education, public health, human rights and scientific research. His remaining personal net worth is just over $2 million, and he rents an apartment with his wife in San Francisco.

“You can only wear one pair of pants at a time,” he said.
Example is not the main thing in influencing others. It is the only thing.

ALBERT SCHWEITZER

Il n’y a pas plus sourd que celui qui ne veut pas entendre