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## News letter - on making the difference.

*On Social structure & disruptive technology and how they are connected*

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### 1. High population density triggers cultural explosions?

"Increasing population density, rather than boosts in human brain power, appears to have catalyzed the emergence of modern human behavior,

"Ironically, the finding is that successful innovation depends less on how smart you are than how connected you are seems as relevant today as it was 90,000 years ago" [sciencedaily.com](http://sciencedaily.com) a new study by University College London.

### 4. Guns Germs and Steel: Jared Diamond on Geography as power forward by Bill Gates

- "When Columbus, Cortes, Pizarro and other European colonists arrived in the New World five centuries ago, why weren't they driven into the sea by thousands of native warriors on horseback brandishing guns and carrying epidemic diseases?"
- Why was wheat domesticated in the fertile crescent ? Or at the northern part of the Jordan Valley ? - it is believed that the diversity of species and climate in that region allowed for the experimentation of various wheat. (It is believed that wild wheat can improve today's cultivated one.)

### 6. Where innovation creates value

"It doesn't matter where scientific discoveries and breakthrough technologies originate—for national prosperity, the important thing is who commercializes them. The United States is not behind in that race."b

- "US economy. Manufacturing, with just 12 percent of US GDP, accounts for some 42 percent of the country's R&D and employs a disproportionately large number of its scientists, technicians, and engineers." "Services, with about 70 percent of US GDP, accounts for a disproportionately low one.
- "US service sector and its use of innovations in information technology this is among the main reasons why since the mid 1990s, [productivity and incomes have grown faster in the United States than in Europe and Japan](#)". ("inefficient highly regulated small-scale shops discourage companies from taking a chance on anything new".). [mckinseyquarterly.com](http://mckinseyquarterly.com)

### 2. Germany's Solar head start

"Culture, and culture that extends all the way to the government. They recognize at a federal level [climate](#) change is a problem. They recognize that renewable energy to replace fossil fired energy is critical. They also recognize that it's very important for energy security". ([scientificamerican.com](http://scientificamerican.com))

### 3. Green Power Takes Root in the Chinese Desert [NYtimes.com](http://NYtimes.com)

"This oasis town deep in the Gobi Desert along the famed Silk Road and the surrounding wilderness of beige sand dunes and vast gravel wastelands has become a center of China's drive to lead the world in wind and [solar energy](#)."

"series of projects is under construction on the nearly lifeless plateau to the southeast of Dunhuang, including one of six immense wind power projects now being built around China, each with the capacity of more than 16 large coal-fired power plants.

"Each of the six projects "totally dwarfs anything else, anywhere else in the world,"

### 5. Chasing the sun - in the USA

This spring the US department of Energy announced \$777 million over five years to support 46 new energy research centers, another \$280 million for eight "energy innovation hubs," and \$400 million to launch and fund the Advanced Research Projects Agency-Energy, a program based on the 1960s-era ARPA program that led to, among other things, the Internet. [Technologyreview.com](http://Technologyreview.com)

### 7. Pickens plan

Create millions of new jobs by building out the capacity to generate up to 22 percent of USA electricity from wind. adding to that with additional solar generation capacity; Using America's natural gas to replace imported oil as a transportation fuel in addition to its other uses in power generation, chemicals/

## List of primary sources

1. <http://www.sciencedaily.com/releases/2009/06/090604144324.htm>
2. <http://www.livebetterindex.com/4fact.pdf>
3. [http://www.nytimes.com/2009/07/03/business/energy-environment/03renew.html?\\_r=1](http://www.nytimes.com/2009/07/03/business/energy-environment/03renew.html?_r=1)
4. [http://www.edge.org/3rd\\_culture/diamond\\_pulitzer/diamond\\_index.html](http://www.edge.org/3rd_culture/diamond_pulitzer/diamond_index.html)
5. <http://www.technologyreview.com/business/22833/>
6. [http://www.mckinseyquarterly.com/Where\\_innovation\\_creates\\_value\\_2304](http://www.mckinseyquarterly.com/Where_innovation_creates_value_2304)
7. <http://www.pickensplan.com/theplan/>