Hans rosling's paradox - despite access to numerous sources of information, peopl...

The paper " Hans Rosling's Paradox - despite Access to Numerous Sources of Information, People Tend to Prejudice on Many Issues" is a great example of a movie review on social science. Hans Rosling is an internationally acclaimed Professor of International Health at the Swedish Karolinska Institutet and presents a compelling argument for the use of statistics and data-literacy to debunk preconceptions about global development. In a 2006 TED talk, Rosling begins by documenting test results in which he found that high-achieving students and even their professors are not sufficiently knowledgeable about the world. To emphasize the point, he contrasts the test results to chimpanzee scores: anecdotally, chimpanzees would have scored higher despite the fact that chips select answers randomly (Ted. com. 02: 04). Ultimately he captures the central theme of his talk as the following: humans have access to sufficiently informative sources of knowledge but have a cognitive bias for preconceived and outdated ideas. Proceeding from this introduction, Rosling illustrates these prejudices by demonstrating that, while his students saw the world in the old world order of Western and Third Worlds, there has been a marked shift in certain telling measures since 1960. Using fertility rates, life expectancy at birth and health care outcomes, Rosling establishes that these measures have shifted: China and LatAm have increasingly higher quality health care outcomes, longer life expectancies, and smaller families while Middle Eastern or Arabic countries have longer life spans with minimal changes in family sizes. Rosling further demonstrates these changes by selecting the profiles of individual countries such as Indonesia, India, and Vietnam- which matched 1974 measures of life expectancy and family size in the United States by 2003 (Ted. com, 06: 00).

Rosling further debunks the preconception of the income distribution, establishing that globally, there is an overlap between all income groups between the poorest (Sub-Saharan African, SSA) and richest (OECD) countries. Moreover, when child survival and logarithmic GDP growth are compared, there seems to be a direct correlation between the two. Tellingly, even within the poor performing SSA, there are significant differences: for instance, Mauritius' child survival rates are comparable to Sri Lanka's. Large differences are also observed in other world regions such as South Asia, Latin America, and the former Soviet bloc, particularly between the outliers, and even between individual countries that are not located within the same region such as South Korea vis-à-vis Brazil, Uganda and the United Arab Emirates (Ted. com, 12: 20). In warning policymakers about the dangers of using ' averaged' data as opposed to a contextualized understanding, Rosling also demonstrates that even within countries, there are differences in, for example, child survival rates (Ted, com, 13: 21): the outliers within the country, the 20% richest and the 20% poorest, in Niger, Uganda, and South Africa have markedly different survival rates. Regardless of the importance of free access to granular data in designing contextualized strategies for human health and shaping human conceptions, Rosling laments that there exist significant barriers to such access namely: restrictions to access by levying charges or access privileges, resistance by domain experts and gatekeepers and lack of robust natural language search and ready-to-use visualization technology to integrate this data. He argues that to get the entire picture of global change patterns, the information should be widely available and the tools required to manipulate this data not require

significant upfront knowledge (Ted. com, 17: 07) Rosling's presentation relates to computer science and informatics in that it is a call to action for computer scientists and statisticians to ensure wider availability of data and develop easy-to-use tools to manipulate this data. Rosling notes that information gatekeepers such as those in charge at relevant United Nations Organization's and WHO offices question the capacity of their information architecture to support wider dissemination of collected data. Career and academic computer scientists and their associated counterparts should facilitate the process of transforming the information architectures of these organizations from an analog to a digital one, amenable to free and open access and with attendant tools to make meaningful use of them (Suber, 16).

In addition, the presentation is relevant to policy makers and administrators in that it provides the rationale for ensuring information access, especially where its collection and analysis was publicly funded. Indeed, the buy-in of these gatekeepers and organizational managers is critical to facilitate access to information that will, firstly, debunk outdated world views and, secondly, help tailor highly contextualized strategies in efforts such as health management within countries and their regions.

Have there been any updates to Hans Rosling's approach and recommendations regarding his call to action to greater information access since 2006? Did any of his income equality growth predictions (at 8: 33 minutes into the presentation) prove true and if not, did this affect his thesis, choice of methods (such as calculation GDP growth logarithmically) and recommendations? Are there any applications of his recommendations into

other fields such as access to crime data/patterns?

Has there been any significant derivative works such as criticism of Rosling's approach and are they grounded in truth? Is there skepticism into his approach and what are the merits? Have any of his recommendations and tools (Gapminder) had a verifiable effect on target communities (career computer scientists, policy makers, and public health graduates/officials)?

Has there been an increase in the expenditure of governments and non-governmental organizations such as the UN into cultivating a culture of open data access?