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Beyond GDP: the rapid growth of ICT contributes to reducing world disparities

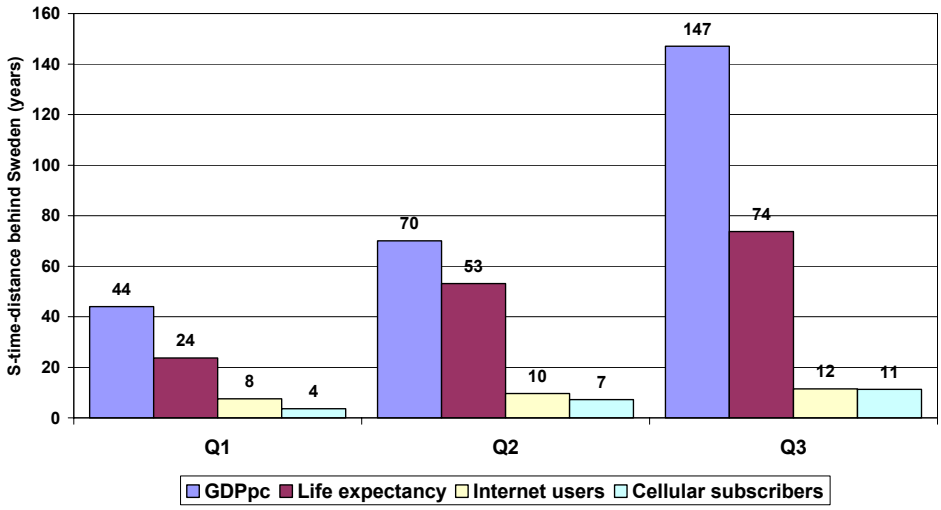
The broader orientation beyond GDP means that comparisons and policy debate have to be broadened in two respects: 1) with new values and new Beyond GDP indexes or indicators and 2) with new statistical measures that can help the stakeholders to build their perceptions of the situation in a broader dynamic framework that is closer to the reality.

In such a broader framework beyond the static measures (like Gini coefficients, indexes or percentage disparities) a complementary but very different picture of the importance of the ICT in world development is obtained. **The dynamics of the ICT access might be considered as important means to reduce disparities in the world, at least in this domain**.

S-time-distance is a novel measure to measure and to assess the overall "position" and "progress" among and within countries. It measures the distance (proximity) in time between the points in time when the two time series compared reach a specified level of the indicator X. At the theoretical level the present state-of-the-art does not realise that, in addition to static comparison, for time series there exists in principle a theoretically equally universal measure of difference (distance) in time for a given level of the variable.

Applying this new perspective to examine the time distance view of world disparities in my paper for the IARIW conference **http://www.iariw.org/papers/2008/sicherl.pdf** in the empirical part **S-time-distances were estimated** for 160 countries for GDP per capita in 2003 and for about 190 countries for female life expectancy and for infant mortality in 2005 **against the long-term series for Sweden as a benchmark.** The results showed how many years earlier were the present levels of indicators for a country attained in Sweden. A novel added dimension of the disparity in the world is shown: one half of the countries (80 countries) were lagging Sweden by more than 70 years, of them 36 countries even for more than 160 years. The corresponding dynamic development gaps were less but still substantial: for infant mortality the median value was 57 years and for female life expectancy 53 years.

How many years are the present values of the quartiles of world frequency distributions of countries behind Sweden
Time distance gaps for the selected ICT indicators are much smaller than for GDP per capita and life expectancy!



The development gap measured by S-time-distance for selected ICT indicators is much smaller. The median values of S-time-distance lag behind Sweden for internet users per 100 inhabitants were in 2006 about 10 years and for cellular subscribers per 100 inhabitants about 7 years, **even though the static disparities are high**. This drastic decrease in the development gaps against that for GDP per capita when measured by S-time-distance (easy to understand by everybody) against the other domains is not due only to the recent introduction of these ICT but also to the speed of the ICT diffusion. There are many constraints for further diffusion of the more elaborate usage of ICT like affordability, educational, knowledge and technical infrastructure but the speed of ICT dissemination is nevertheless simply beyond comparison with the dynamics of change in GDP per capita or life expectancy.

Empirically, the perceptions of the degree of disparity may be very different in static terms and in time distance, which leads to new conclusions and semantics important for policy considerations. The results and conclusions based on the two-dimensional analysis add a new dimension and new insight, while none of the earlier results are lost or replaced. For a better perception of the reality all perspectives have to be studied simultaneously.

The perceptions of well-being and societal progress are subjective and the resulting decisions, behaviour and actions are influenced not only by the available statistical data and indicators **but also by the measures that are used in the measurement, analysis, presentation and semantics of discussing these issues as indispensable elements to form these perceptions.**

New understandable presentation measures (not only new indicators) can help the need to **reach very diverse groups of stakeholders**. Therefore I would suggest a small addition to the program for research and testing:

"Beyond GDP" ICT tools
ICT tools are needed to demonstrate the relevance of Beyond GDP societies to all stakeholders (from policy makers to the public at large), to simulate the impact of policies on social, economic and environment issues, to test new Beyond GDP indexes or indicators ***and new measures understandable to general public.***

P.S. For discussion of the methodology and also its application to monitoring MDG see
http://www.gaptimer.eu/images/stories/texts/Sicherl%20Measuring%20Progress%20of%20Societies%20Radenci%202006.pdf