Towards a Sustainable Information Society

Contribution to the World Summit on the Information Society

The TERRA project is concerned with the creation of scenarios and models of present and future developments in order to support policy debate and decision aimed ultimately at optimising the contribution of Information Society Technologies to Sustainable Development. Such a wide and complex subject area merits rigorous and systematic development. For the purposes of TERRA it is taken as read that attaining Sustainable Development (SD, as defined by e.g. the Brundtland Commission) is both desirable and something to which the Information Society (IS) and its associated technologies can contribute. The Information Society is inevitable, and attaining sustainability necessitates an understanding of the implications of the tools and tendencies it contains.

The starting point for the whole TERRA topic is thus the 'IST proposition:'

The new technologies of the Information Society (ISTs) seem likely to offer scope to enable economic growth, and to allow a more equitable distribution of wealth, without necessarily increasing consumption, pollution and energy use.

This is a proposition in need of both proof – in that many would deny it – and implementation – in that sustainable development within the inevitable IS requires active and adaptive employment of ISTs. To meet these requirements, TERRA decomposes the IST proposition itself into sub-propositions relating to specific domains – these propositions 'bookend' the Story of TERRA. Implementation of these propositions is a task for public policy as well as private action; the 'Story' therefore develops the progression from historic data (affording hindsight) through models and scenarios (whose main purpose is shedding light on the inner workings of the IS-SD interface, i.e. providing insight) to their contribution to the necessary background for the creation of public policy (which necessitates some complementary foresight). ISTs are not, historically, the first technological leap[i] to produce sudden and marked impacts on society –considerable pre-existing knowledge is available to guide us in conceptualising and articulating the manner in which technologies influence society: the Story of TERRA surveys the resulting conceptual framework, divided in chronologically and effectively distinct phases with typical accompanying 'rebounds.' At this stage the potential for individual action through lifestyle change is introduced into the argument.

Such conceptual frameworks help interpretation of specific data; but these data must exist, be gathered and collated, and ultimately be handled by suitable analysis tools. The project uses a number of complementary 'windows on the world': data sources (UN; OECD; World Values Survey etc), particular TERRA analytical tools and exploratory models (ASA, IFS for TERRA) and the scenario framework.

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These principles and data sources were used to develop specific policy perspectives relating to human and social development and environmental and ecological considerations. In addition to specific insights and analyses, these studies illustrate the use of scenarios and models to illuminate particular problems. The Story of TERRA concludes by considering a number of topics relating to an even more uncertain future in which change is discontinuous or radical, or where more work is needed – for instance where data or indicators are missing; where (e.g. networking) theory is inadequately developed; where policy issues have received insufficient attention.

Among the most important products of the project are clarifications of key concepts (Concept Sheets) and particular mechanisms (Insight Primers) and a set of tools and methodologies for applying these concepts across a range of policy contexts – from discussion to decision-making and from international conferences to more tightly-defined governmental, private sector and civil society organisations. The Story of TERRA document provides a summary of and an introduction to the very large quantity of papers and reports produced in the TERRA project. The accompanying CDs contain the whole TERRA resource of data and discussion, as well as tools required to utilise both empirical data and theoretical knowledge in pursuit of further understanding of the issues surrounding the contribution of ISTs to sustainable development.

The Story of TERRA thus goes well beyond a simple and finite explanation of a limited number of specific problems. Rather, it is a work space containing: a set of tools with an instruction manual; a vast mass of historical data with an interface and tools for exploring past and future; and a sufficient examination of underlying theories to facilitate their use in addressing the real problems facing the world. The examples offered are just that – instantiations of the tools and techniques. The real Story of TERRA is created by you, the user responding to specific issues in the real world. Although intimately concerned with the future, it is not a crystal ball: it should illuminate a likely range of futures but not a single choice: for this reason its final outcomes are described as 'policy briefings'. Uncertainty will always remain in the making of policy, but TERRA's tools should enable at least a realistic assessment of the extent of that uncertainty.

Its editors, who have added introductory, explanatory and linking text, have distilled the Story of TERRA document from the very large quantity of work in TERRA to what is essentially a guided tour of the work. Those who find items of specific interest are then directed to footnotes, references the catalogue Raisonnée and the included models and databases for more detailed discussion.

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[i] The IS also involves indirect proximate (networking) to systemic (globalisation) effects. The 1870's-1910's globalisation, driven by general -purpose transport and communication technologies - and thus wider distribution of human brain power - did not 'hollow out' the income distribution in the same way. History teaches us some things but its deepest lesson is that it does not teach us everything.