VE RI

Center for International Development

at Harvard University

Interactive Exhibit on the Product Space and the Evolution of Economic Development

an Exhibit by César A. Hidalgo, Ricardo Hausmann, Geoff House, Isabel Meirelles, Phil Salesses and Alex J.G. Simoes

Center for International Development, Harvard University Macro Connections, the Media Lab, MIT School of Design, Northeastern University

While the question of why some countries are rich while others remain poor is popular in both academic and non-academic circles, both the general public and decision makers know little about the modern methods that academics currently use to help understand differences in income. This exhibit uses graphic and interactive features to introduce the latest research on the topic, which shows that the ability of a country to produce a product, and prosper, depends strongly on the set of products that it was previously making.

The exhibit on **The Product Space**, and the **Evolution of Economic Development** was launched at the new MIT Media Lab building, and after MIT the exhibit will be moved to the UN offices in Geneva, where it will be presented at their main conference center: UNCTAD (United Nations Conference in Trade and Development). This exhibit uses interactive screens to study how people interact with the content that is presented to them, helping explore questions on the type of contents that are more conducive to ignite discussion and conversation. This is extremely relevant in the context of the exhibit, given that the information being presented is relevant for policy making. Interactive media it is also used to connect people around the globe, by having interactions recorded in one particular venue, such as MIT or Geneva, broadcasted to a different part of the world.

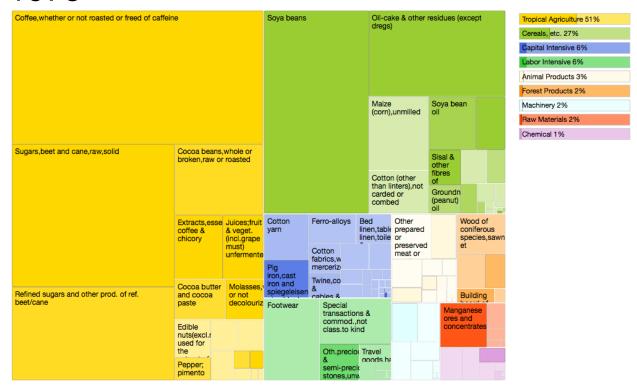
This first implementation of the exhibit combines large scale graphics with the interactive content to allow policy makers as well as other individuals to visualize and compare the level of industrial development of different countries. The exhibit also serves as an illustration of the data visualization tools that will become prevalent in a future where Decision Making Media will become a ubiquitous tool that will enable relevant interactions of individuals around the globe.

The exhibit shows the industrial development of countries during the last 50 years by showing how the set of products that a country makes evolves in time. The exhibit introduces the concept of the product space by showing that development is constrained by the structure of the network of product relatedness. The exhibit illustrates also how relatedness can be estimated, what is the current structure of the world's product space, and how different countries have moved in the Product Space over time. Ultimately, these helps understand why the fate of countries that had similar incomes decade ago has diverged. Since the productive structure of countries changes over time, a full account of the evolution of the world economy is composed of approximately 10,000 illustrations (50 years x 200 countries) per visualizations technique. To explore these visualizations, users can use touch screens to compare the productive structure of countries at different points in time as well as their evolution.

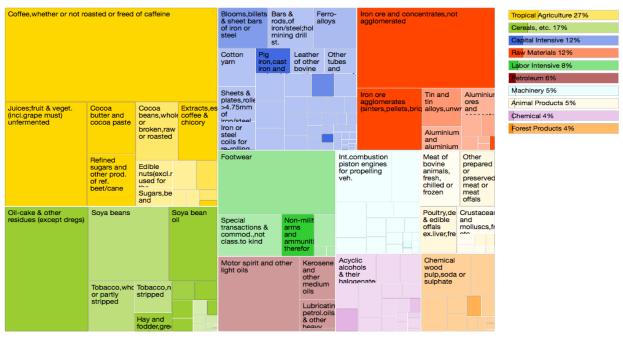
Treemaps

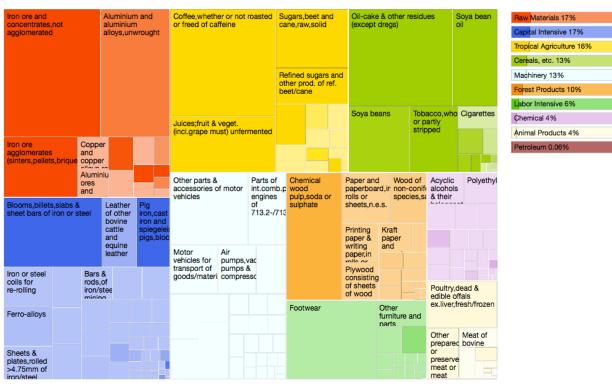
A treemap shows the export structure of a country dissagregated into the products that it exports. In this example we present Brazil

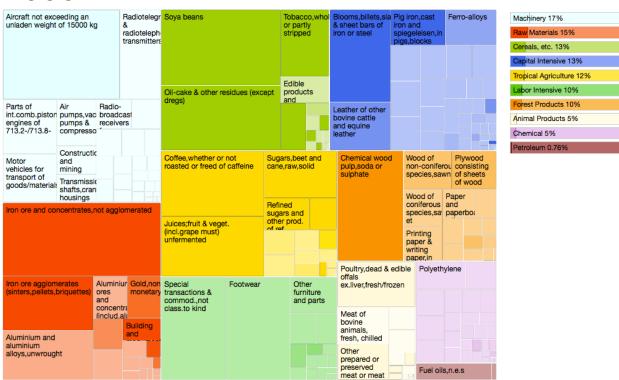
1975



1985







Using The Product Space
Each node represents a product. Links connect related products. Black squares show the products that a country

In this example we present Malaysia

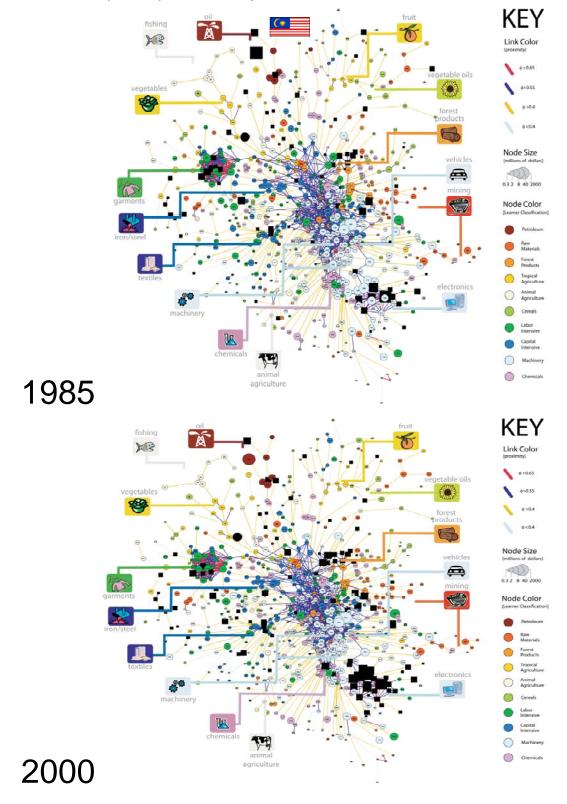


Exhibit Layout

