SAID BUSINESS SCHOOL, University of Oxford

SEMINAR SERIES / Hilary 2013

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Sandwiches and drinks will be provided

Please note: although the seminar programme detailed was correct at time of printing, seminar arrangements are subject to change – for the latest information, please check the seminar webpage.

'Using data on patents to build and study technology spaces'

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Tuesday 15th January 2013, 12.30 -14.00
Seminar Room A, Saïd Business School

ABSTRACT:

A perspective on technological change commonly found in economics, operations research and management science sees it as resulting from a search on a space of combinatorial possibilities. The topological features of the space constraint which regions can be accessed from any given starting position and thus which technological trajectories are more likely to occur. Empirical challenges; how to discretize technologies?, how to define such a space; have made this compelling view of technological change more of a metaphor than a model. In this talk we will discuss how the technology codes used by the U.S. Patent Office to identify the distinct technologies constituting an invention make it possible to build network technology spaces. The nodes of such a space are the technology codes with edges linking codes that have co-appeared in a patent. For any given technology we can therefore reveal the "technology ecosystem" in which it is embedded. We will present preliminary results from an examination of the technology space for a specific type of technologies, namely photovoltaics. A question of particular interest to us is whether technology spaces can be used, in combination with other types of data, to development paths for specific technologies.

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