

Leveraging tech mining for revealing and forecasting innovation pathways: what now and what next?

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Since 2006 a group of scholars in Europe, China and the US, have grappled with the mapping of emerging fields of technology with a view to reveal and prospect potential innovation pathways. Topics have focused on, nanobiosensors, photovoltaics, telehealth, lab-on-a-chip technology, electric vehicles and neurotechnologies. Currently a number of projects are underway which look at fields such as Big Data Analytics, Additive Manufacturing, Bioprinting and Nanotechnology in Healthcare (particularly drug delivery).

As part of this initiative, in my own projects in Europe and in fruitful collaboration with colleagues in GeorgiaTech and the Beijing Institute of Technology, I have participated in a number of projects to reveal and forecast innovation pathways, some leveraging tech mining to augment this process. Other projects have focused heavily on qualitative studies, informed by theories of technical change and innovation studies. These “other projects” reveal openings for further leveraging tech mining and other big (and small) data analytics.

This presentation will give an overview from my perspective about the “Revealing and Forecasting Innovation Pathways” initiative, and through a number of examples describe potential useful directions that are being explored today and options that could be a further next step.