

The Triple Helix: University-Industry-Government Innovation In Action

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See <http://www.amazon.com/Triple-Helix-University-Industry-Government-Innovation-Action/dp/0415964512>

Abstract:

The interaction among university, industry and government is the key to innovation and growth in a knowledge-based economy. In ancient Mesopotamia, a triple helix water screw, invented to raise water from one level to another, was the basis of a hydraulic system of agricultural innovation that irrigated ordinary farms as well as the Hanging Gardens of Babylon, one of the seven wonders of the ancient world. ¹ The triple helix as a physical device is superseded by university- industry- government interactions that have led to the venture capital firm, incubator and Science Park. These social inventions are hybrid organizations that embody elements of the triple helix in their DNA.

The university is the generative principle of knowledge-based societies just as government and industry were the primary institutions in industrial society. Industry remains a key actor as the locus of production; government as the source of contractual relations that guarantee stable interactions and exchange. The competitive advantage of the university, over other knowledge producing institutions, is its students. Their regular entry and graduation continually brings in new ideas in contrast to R& D units of firms and government laboratories that tend to ossify, lacking the “flow-through of human capital” that is built-in to the university.

Universities, firms and governments each “take the role of the other” in triple helix interactions even as they maintain their primary role and distinct identity. The university takes the role of industry by stimulating the development of new firms from research, introducing “the capitalization of knowledge” as an academic goal. Firms develop training to ever higher levels and share knowledge through joint ventures, acting a bit like universities. Governments act as public venture capitalists while continuing their regulatory activities. In contrast to theories that emphasize the role of government or firms in innovation; the Triple Helix focuses on the university as a source of entrepreneurship and technology as well as critical inquiry.

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