

Leveraging Isomorphism for Developing AI Focused Innovation Systems

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Abstract

Innovation systems have long been a valuable tool for understanding innovation, using a systems perspective to explain its emergence. While useful, the specific type of innovation these systems create is often overlooked. Given AI's importance, it warrants focused attention. Using the innovation ecosystem model, the following agents can be considered: universities, industry, government, infrastructure, financing, research institutions, and entrepreneurship, aiming for radical or incremental AI innovation.

To foster AI effectively, it is crucial to focus on designing a system that creates and competes in such a field. Leveraging isomorphic properties, the AI-innovation system can attract new ventures and companies, legitimizing them through aligning themselves to the innovation system's theme, and therefore achieving specialization. Following this, growth can be achieved via a related expansion strategy, targeting AI's complementary industries.

By positioning the government as the innovation system's articulator, resources can be allocated to maximize agent conditions and promote AI-related innovation, by designing public policies for each agent under the umbrella of an AI-innovation system development.

In conclusion, an AI-focused innovation system is a powerful way for regions to develop AI capabilities. It not only fosters AI development, but can also grow to use AI to develop other industries, creating a positive feedback loop. This approach allows for a specialized system that can grow and expand, creating a virtuous cycle of innovation.