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What if patents were adaptive?

Adaptive

Patent

ransitional

Visionary

An adaptive intellectual property (IP) system that ensures equitable access to essential technologies driving social-impact-focused innovation while enhancing transparency and supporting sustainable development for societal progress.



UNCERTAINTIES

Systems, Technology

MEGATREND (Most significant)

Borderless World – Fluid Economies

TRENDS

Cross-Sectoral Partnerships Ideation, IP & Entrepreneurship International Collaboration Mobilising Innovation Open Data

TECHNOLOGIES

Advanced Computing Artificial Intelligence Blockchain

SECTORS IMPACTED

All Sectors

KEYWORDS

Blockchain Cross-Border Data Intellectual Property Patents Royalties



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WHY IT MATTERS TODAY

Approximately 97% of patents never recover their filing costs, and about 50% expire prematurely because of unpaid maintenance fees.¹⁰⁴³ Even among university technology transfer offices, less than 20% break even on their patent investments.¹⁰⁴⁴ As a result, patents with limited commercial success are often abandoned despite filing costs and efforts.¹⁰⁴⁵

Governments are trying to accelerate the patenting process. The United Kingdom's Green Channel, launched in 2009, expedites patent applications with environmental benefits.¹⁰⁴⁶ Similar programmes for green technologies are also being launched in Brazil,¹⁰⁴⁷ Canada,¹⁰⁴⁸ China,¹⁰⁴⁹ Japan¹⁰⁵⁰ and the United States,¹⁰⁵¹ with China extending the scheme to other sectors, including biotechnology and advanced manufacturing.¹⁰⁵² The Dubai Intellectual Property Hub was launched in October 2024 to make it easier for creators and/or innovators to understand what is required to protect their ideas and acquire the necessary resources to do so.¹⁰⁵³

As AI evolves, its role in inventions and as a source of innovation is complex and may challenge current patent laws.¹⁰⁵⁴ When used as a general-purpose technology, AI raises fundamental questions about whether existing IP systems, designed for people and organisation-led innovation, require adaptation to account for AI-driven innovation and creation.¹⁰⁵⁵



BENEFITS

Accelerated innovation; improved global societal outcomes; more equitable distribution of IP benefits.



RISKS

Increased complexity in IP management; cybersecurity vulnerabilities; challenges determining fair value; disruption of established industries.

THE OPPORTUNITY

An adaptive IP licensing system replaces static protections with a dynamic framework that triggers adjustments based on technological maturity, measurable public benefit and social impact priorities.¹⁰⁵⁶ Incorporating blockchain, advanced machine intelligence, and smart contracts,¹⁰⁵⁷ an adaptive patent system introduces 'explainable IP', enhancing transparency with interactive guidance, simplified language, and public engagement.

In addition to critical fields such as healthcare, environmental sustainability, and humanitarian aid, licensing terms adapt to country development indicators, such as the Human Development Index or progress on the Sustainable Development Goals, ensuring equitable access to essential technologies.¹⁰⁵⁸ By preventing patent hoarding and promoting active development, this approach creates a streamlined, equitable and future-ready global patent ecosystem.

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