

**The Emergence of New Technologies:  
A Multi-Perspective Analysis on the Case of HPV Molecular Diagnostics**

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Emerging technologies are often suggested to represent important opportunities for nations' economic growth. They have the potential to create or reinvigorate industries and sub-sectors that support such innovations. Given the key role emerging technologies are seen to play, we aim to investigate the phenomenon of emergence in order to disentangle some its complexities. We adopt an institutional-evolutional framework combined with a multi-perspective approach that includes scientific disciplines, technological areas, actors and institutions involved in the process of emergence. To this end, qualitative (historical analysis and interviews) and quantitative (bibliometric methods) techniques are jointly used. We focus the analysis on the process of emergence of Human Papilloma Virus (HPV) molecular diagnostic tests since the conception of this approach in the 1980s. HPV diagnostics are one of the most promising technologies for cervical cancer screening, with a market of over 100 million tests performed annually. Findings reveal the emergence of HPV diagnostics mainly driven by (i) the potential the technology has for the development of more reliable tests and (ii) companies seeking new technological opportunities to compete with the established Pap test. Our paper makes contributions in two respects. Firstly, we show that emerging technologies may co-exist, rather than replace, established technologies especially in environments characterized by strong institutions and entrenched actor groups. Secondly, we highlight how adopting a multi-perspective analysis combined with mixed qualitative-quantitative techniques is helpful to investigate the process of emergence since it provides a broader view of the phenomenon.