Women and Publishing: The Case of Quebec's Nanotechnology Research for Water Applications

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Abstract
Over the past decade many nations have grappled with the challenge of policy making for nanotechnology science and applications whose complexity, intricacy and rapid commercial payoff engender a broad scope of issues, drawing much attention to pivotal role of foresight in regulating existing and potential inequalities this technology brings to the society (Cozzens and Wetmore 2010). However, less attention has been given to the understanding of the impact and contribution of women to the development of these emerging technologies (Smith-Doerr 2010). Known as "driving force of technology" (Simard et al. 2008), gender diversity in new and high-tech industries fuel technological advancement and boost overall competitiveness. Recognition of women role in scientific research, patent creation and any other innovative activities can help identify mismatches in nanotech science and technology policies that can thwart innovative performance, which will subsequently gear society toward becoming more knowledge-intensive.

This study primarily seeks to illuminate the role of gender in Quebec's nanotechnology systems of innovation, denoting women's contribution to research and scientific productivity and pinpointing challenges and obstacles they face in their persistent publishing efforts in developing nano-water technology. The quantitative analysis of this research is grounded on publication data extraction from SCOPUS literature database over the period 1970-2010. We further analyzed women's publishing contribution in six different nano-water technology application areas, namely desalination, disinfection, filtration, photocatalysis, remediation and sensors. The results of this study are of a great importance to policy makers to gain insight into the identification of leverage points to promote gender equality in emerging science and technology policies, enhance success in new interdisciplinary environments and consequently foster economic growth.

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