

Xavier Jaravel

February 20th, 2025

The next innovation revolution should be democratisation

Innovators are most likely to be men from privileged backgrounds. Xavier Jaravel argues that democratisation and widening of access to innovative careers worldwide is key to boosting long-term growth and addressing today's economic, environmental and societal challenges.

Xavier Jaravel presented his research on the *'Lost Marie Curies'* at LSE, 27 February 2025, as part of LSE's *Inaugural Lecture Series*, you can listen to a recording [here](#).

At the heart of every innovation are individuals who, through creative vision, can develop solutions to today's environmental, societal, and economic challenges. Despite having equal potential, children from minority or underprivileged backgrounds are less likely to become inventors. Unlocking the talent of these "Lost Einsteins" and "Lost Marie Curies", and promoting diversity within the pool of talents, is key to driving growth and reducing inequalities.

While innovation might be seen as innate and independent of external factors, based on current trends the geniuses of tomorrow are more likely to be men from privileged backgrounds. Among children with similarly high abilities, those with wealthy parents have a greater likelihood of becoming innovators, as measured, for example, **by the number of patents**. The probability of a child securing at least one patent in their lifetime is very low and shows minimal growth at lower levels of parental income. In contrast, this probability increases sharply at the upper end of the income distribution, particularly among the top 20 percent.



Despite having equal potential, children from minority or underprivileged backgrounds are less likely to become inventors.



Parental contributions go beyond financial support for their children's education and innovation careers; they also encompass the transmission of knowledge and aspirations. In Finland, a country with a universally accessible and free education system, monetary income **may not be the primary factor** driving the correlation between parental wealth and a child's likelihood of becoming an innovator. Sociological factors, such as **cultural capital or proximity to innovation hubs** during childhood, significantly increase the chances of becoming an innovator. For instance, in the innovation hubs of Boston or San Francisco, 4 out of 10,000 children will eventually file a patent. In contrast, in Fresno—less than three hours from San Francisco—this number drops to less than 1 out of 10,000.

Losing these talents, shrinking the potential talent pool, and ultimately slowing innovation come at a significant macroeconomic cost. It is essential to encourage all highest-ability children (the “top 1%”) to innovate, as they generate the greatest economic gains. Notably, women remain underrepresented in scientific and technological fields across nearly all countries. Achieving gender parity could **boost productivity growth rates by 70%**. For high-income countries like the United States, this would mean an increase in annual productivity growth from approximately 2% to 3.4%. Furthermore, the number of inventors in the U.S. would be **four times higher** if women, minorities, and children from low-income families (bottom 80%) innovated at the same rate as white men from high-income families (top 20%).



Losing these talents, shrinking the potential talent pool, and ultimately slowing innovation come at a significant macroeconomic cost.



The talent pool is not only shrinking in size, but is also losing its diversity. A phenomenon of homophily leads inventors to **create products tailored to people like themselves**. Innovators from high-income families are more likely to develop products aimed at high-income consumers, often targeting luxury markets such as finance. In contrast, innovators from minority backgrounds bring a fresh perspective shaped by their personal experiences, by addressing challenges they have faced. For example, in the late 19th century, Josephine Cochrane invented the dishwasher to protect her fine china, which her maid frequently damaged while handwashing. Promoting diversity within the pool of inventors is likely to steer innovation toward new areas, fostering groundbreaking discoveries.

Simple, targeted policies can unlock talent, drive innovation, and foster growth by attracting more individuals into innovation careers and diversifying the pool of innovators. However, dominant innovation policies tend to follow a “top-down” approach—either *market-led* or *state-led*—leaving little room for broader societal involvement. Innovation, as a collective, gradual, and iterative process, should not be driven solely by markets or governments; it should be *people-led*. Exposure to innovation careers and role models plays a crucial role in shaping educational choices. It is not just about informing individuals about innovation careers, but also about embodying them, as role models play a crucial role due to phenomena of mimicry and inspiration. In particular, **high-potential girls with mentors** are significantly more likely to enrol in selective, male-dominated Science, Technology, Engineering, and Mathematics fields (STEM) programs in college.



Innovation, as a collective, gradual, and iterative process, should not be driven solely by markets or governments



For similar reasons, democratizing access to innovation careers in low-income countries is essential. One approach is to **lower immigration barriers and increase the availability of scholarships** for top foreign students from developing countries.

In addition to better allocating talent for developing new technologies and innovations, a crucial challenge is enhancing the diffusion of existing technologies. This requires improving education for the general population, enabling them to adopt new technologies more effectively. Facilitating the diffusion of innovation in such a way would also help reduce socio-demographic and regional inequalities.

Innovation can be pursued while at the same time enhancing social mobility or gender equality. Unlocking untapped talent and ensuring equitable access to innovation careers can accelerate both technological and social progress, driving economic growth and fostering a more inclusive and prosperous future. The next innovation revolution should be called “democratisation”.

Xavier’s book, *Marie Curie habite dans le Morbihan*, is available via Éditions du Seuil.

The content generated on this blog is for information purposes only. This Article gives the views and opinions of the authors and does not reflect the views and opinions of the Impact of Social Science blog (the blog), nor of the London School of Economics and Political Science. Please review our [comments policy](#) if you have any concerns on posting a comment below.

Image Credit: *Olga Mudrak on Shutterstock.*

About the author

Xavier Jaravel

Xavier Jaravel is Professor of Economics at the Department of Economics at LSE.

Posted In: Equity Diversity and Inclusion | Featured | Higher education | Impact | Knowledge exchange | LSE comment



© LSE 2025