

Luck as a Challenge for the Responsible Governance of Science and Technology

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The role played by luck in scientific and technological development has clear implications for forward- and backward-looking science policies. This track invites contributions that shed a critical light on the specific challenges that luck poses for the responsible governance of science and technology.

It is widely acknowledged that serendipity is ubiquitous in both science and technology (Copeland, 2017; Martin, 2007, p. 52). The discoveries of Penicillin and radioactivity, Nylon and Teflon, to name some famous examples, were deeply entangled with chance. If we accept that luck plays a major role in what might generically be termed innovation processes, this poses a fundamental challenge to their responsible governance. It has been suggested that even highly popular strategies such as Responsible Research and Innovation (RRI) cannot ensure the social desirability of innovations (Grinbaum & Groves, 2013). The effectiveness of forward-looking policies thus becomes dubious in the light of luck's power to fundamentally change the course of innovation. The fairness of backward-looking measures such as the attribution of responsibility and blame might also be questioned: How can one justify that some people receive praise for scientific discoveries or technological advancements, which were partially beyond their control? Furthermore, the 'light bulb moment' paradigm, which assigns responsibility for discovery to individuals, seems to neglect the often-collective nature of serendipitous discoveries. We see the problem of luck in science and technology as an instance of the paradox of moral luck, which remains deeply unsettling after decades of intense philosophical debate.

To advance our understanding of luck's challenge for the responsible governance of science and technology, we encourage contributions that:

1. Discuss the relationship between luck, or serendipity, and responsibility. Comparisons could be made between cultural or disciplinary approaches to innovation and chance.
2. Consider how to govern innovation processes in order to diminish chance or utilize it better.
3. Discuss notions of fairness and desert in relation to responsibility ascriptions for chancy discoveries and technologies.
4. Examine case studies that highlight the role of chance in science or technological development.

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300-word abstracts for individual papers should be submitted by Dec 1 at <https://easychair.org/conferences/?conf=spt2019> . Please make sure to mention **at the top of the page** that the paper is for the special track “[Name of Track]”.

Timeline

- December 1st 2018: Deadline for the submission of abstracts
- February 1st, 2019: Expected notification of acceptance
- May 20th-22th, 2019: Conference dates

Copeland, S. (2017). On serendipity in science: discovery at the intersection of chance and wisdom. *Synthese*. doi:10.1007/s11229-017-1544-3

Grinbaum, A., & Groves, C. (2013). What is "Responsible" about Responsible Innovation?: Understanding the Ethical Issues. In R. Owen, J. R. Bessant, & M. Heintz (Eds.), *Responsible Innovation* (pp. 119–142). Chichester, UK: John Wiley & Sons.

Martin, M. W. (2007). *Creativity: Ethics and excellence in science*. Lanham, MD: Lexington Books.