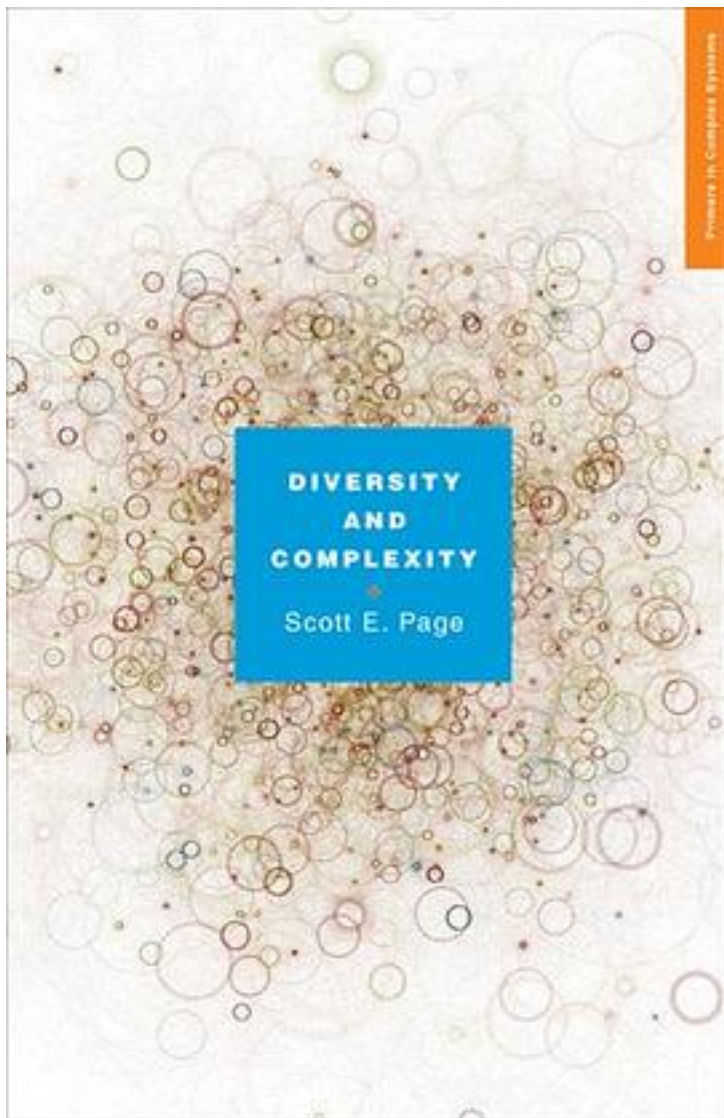


Diversity and Complexity



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著者:Scott E. Page

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This book provides an introduction to the role of diversity in complex adaptive systems. A complex system--such as an economy or a tropical ecosystem--consists of interacting adaptive entities that produce dynamic patterns and structures. Diversity plays a different role in a complex system than it does in an equilibrium system, where it often merely produces variation around the mean for performance measures. In complex adaptive systems, diversity makes fundamental contributions to system performance.

Scott Page gives a concise primer on how diversity happens, how it is maintained, and how it affects complex systems. He explains how diversity underpins system level robustness, allowing for multiple responses to external shocks and internal adaptations; how it provides the seeds for large events by creating outliers that fuel tipping points; and how it drives novelty and innovation. Page looks at the different kinds of diversity--variations within and across types, and distinct community compositions and interaction structures--and covers the evolution of diversity within complex systems and the factors that determine the amount of maintained diversity within a system.

- Provides a concise and accessible introduction
- Shows how diversity underpins robustness and fuels tipping points
- Covers all types of diversity
- The essential primer on diversity in complex adaptive systems

作者介绍:

Scott E. Page is the Leonid Hurwicz Collegiate Professor of Complex Systems, Political Science, and Economics at the University of Michigan and an external faculty member at the Santa Fe Institute. He is the author of *The Difference: How the Power of Diversity Creates Better Groups, Firms, Schools, and Societies* (Princeton).

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