



2017 Enterprise Risk Management Symposium

April 20–21, 2017, New Orleans

**The Cyberrisk Ecosystem:  
Where We Are, How We Got Here and  
Where Cyber Risk Management Can Take Us**

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# The Cyberrisk Ecosystem: Where We Are, How We Got Here and Where Cyber Risk Management Can Take Us

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## Abstract

This paper is intended to provide readers with insight into the dynamic cyberrisk ecosystem as it has evolved over recent decades, both from the perspective of the billions of individual and corporate internet users of the “surface web” and from the perspective of the millions of users of hidden services on the “dark web.” Just as biological ecosystems include agents that are largely constructive in nature, coexisting with some that are mainly destructive, as well as some that are visible and some that are hidden, this paper attempts to reveal some of the hidden agents and explain some of the interrelationships between constructive and destructive forces that coexist in this complex, dynamic system of cyberrisks.

This paper also reviews some of the major challenges confronting those who seek to manage cyberrisk, and includes suggestions regarding how a richer understanding of the cyberrisk ecosystem can be used to help organizations better manage cyberrisk. The paper concludes with several recent examples of emerging cyberrisks that illustrate the cyberrisk ecosystem at work. These examples also demonstrate significant characteristics of correlated risk. Finally, one insurer provides an example of how embracing these emerging cyberrisks may enable them to seize upon a market opportunity.

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<sup>2</sup> I would like to thank my sister, Dr. Jacqueline Goodman for her feedback, insight, and editorial assistance. I would also like to thank Paul Rosovsky for his assistance with research, proofing and overall attention to detail. Finally, I would like to thank the members of the Joint Casualty Actuarial Society/Canadian Institute of Actuaries/Society of Actuaries, Risk Management Section for raising awareness and interest, and elevating the dialogue on the topic of cyber risk.