

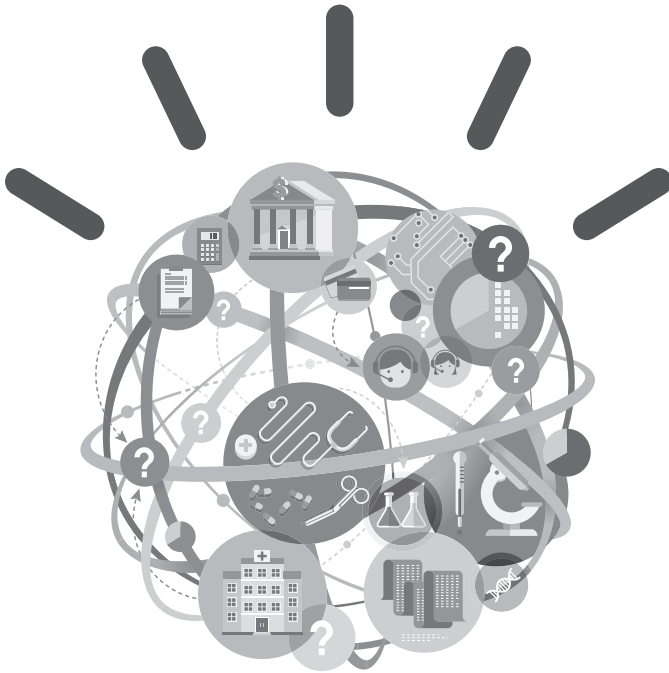
# SMART MACHINES

IBM's Watson and the  
Era of Cognitive Computing

JOHN E. KELLY III    STEVE HAMM

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**JOHN E. KELLY III   STEVE HAMM**

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# CONTENTS

*Preface by John E. Kelly III vii*

<b>1</b>	<b>A NEW ERA OF COMPUTING</b>	<b>1</b>
<b>2</b>	<b>BUILDING LEARNING SYSTEMS</b>	<b>23</b>
<b>3</b>	<b>HANDLING BIG DATA</b>	<b>43</b>
<b>4</b>	<b>AUGMENTING OUR SENSES</b>	<b>69</b>
<b>5</b>	<b>DESIGNING DATA-CENTRIC COMPUTERS</b>	<b>87</b>
<b>6</b>	<b>INVENTING A NEW PHYSICS OF COMPUTING</b>	<b>101</b>
<b>7</b>	<b>IMAGINING THE COGNITIVE CITY</b>	<b>117</b>

*Coda: An Alliance of Human and Machine 137*

*Notes 141*



## PREFACE

John E. Kelly III

**W**hen I was a kid, my dad worked at General Electric's R&D lab in Niskayuna, N.Y. I would visit and watch him work with vacuum tubes, which looked like light-bulbs and directed electrical current in all sorts of devices, from radios and TVs to radar and computers. At the time, I didn't fully understand how vacuum tubes worked, but those visits inspired me to study science and, ultimately, to get two degrees in physics and my Ph.D. in materials engineering. I later came to realize that I had witnessed one of the important transitions in the history of technology. While my dad was showing me vacuum tubes, other engineers were experimenting with the vacuum tube's successor, the transistor, which ultimately ushered in modern electronics and personal computing.

Now we are at the dawn of a much bigger shift in the evolution of technology—a new era affecting nearly every aspect of the field. The changes that are coming over the next two decades will transform the way we live and work just as the computing revolution has transformed the