

Contents

Preface	v
Computational Thinking: An Introduction	1
1 Everyday Computational Thinking Can Save Lives	9
2 Digital Technology in the COVID-19 Fight	19
3 The Metamorphosis of TV	29
4 Smart about Smartphones	37
5 Cybersecurity—How Not To Be a Fish	51
6 Computers: More Than Meets the Eye	63
7 Home Sweet Homepage :-)	73
8 Cloud Computing for Everyone	83
9 A Pattern Here and a Pattern There	93
10 AI: Aiming for Intelligence	103
11 Let's Chat about AI	111
12 A World of 1's and 0's	119
13 Secrets of the Can-Do Machine	127
14 Encryption in the Digital Age	133
15 Bitcoin Is No Coin	143

16	Central Bank Digital Currency	155
17	Logic and Logical Thinking	163
18	1 Plus 1 Equals 10	175
19	Cache–Efficiency Thinking	185
20	Time for Location, Location, Location	193
21	Face-to-Face with the Interface	203
22	Protocols Are Interface Rules	213
23	Computer Programming by Chickens and Rabbits	227
24	Don’t Stop–Do It Again!	237
25	Internet of What? Things!	245
26	Chips Are Everywhere!	257
27	Problem-Solving: Algorithmic and Recursive	269
28	Problem-Solving: Backtracking and Heuristics	281
29	Problem-Solving: Paradigms and Applications	291
30	Parallel Computing: Ways To Cooperate	301
	Becoming a Computational Thinker: A Summary	311
	Index	315