# **BECOMING DIGITAL**

# Toward a Post-Internet Society

### **BECOMING DIGITAL**

## Toward a Post-Internet Society

BY

### VINCENT MOSCO

Queen's University



United Kingdom — North America — Japan India — Malaysia — China Emerald Publishing Limited Howard House, Wagon Lane, Bingley BD16 1WA, UK

First edition 2017

Copyright © 2017 Emerald Publishing Limited

#### Reprints and permissions service

Contact: permissions@emeraldinsight.com

No part of this book may be reproduced, stored in a retrieval system, transmitted in any form or by any means electronic, mechanical, photocopying, recording or otherwise without either the prior written permission of the publisher or a licence permitting restricted copying issued in the UK by The Copyright Licensing Agency and in the USA by The Copyright Clearance Center. Any opinions expressed in the chapters are those of the authors. Whilst Emerald makes every effort to ensure the quality and accuracy of its content, Emerald makes no representation implied or otherwise, as to the chapters' suitability and application and disclaims any warranties, express or implied, to their use.

#### British Library Cataloguing in Publication Data

A catalogue record for this book is available from the British Library

ISBN: 978-1-78743-296-3 (Print) ISBN: 978-1-78743-295-6 (Online) ISBN: 978-1-78743-675-6 (Epub)



ISOQAR certified Management System, awarded to Emerald for adherence to Environmental standard ISO 14001:2004.

Certificate Number 1985 ISO 14001





## CONTENTS

List of Tables		i×
About the Author		X
Preface		xiii
1.	The Next Internet	1
2.	Converging Technologies	15
3.	Power, Politics and Political Economy	57
4.	The Body and Culture	97
5.	Problems	129
6.	Citizenship in a Post-Internet World	175
Endnotes		213
Further Reading		221
Index		223

## LIST OF TABLES

Chapter 2		
Table 1	Forecast Growth in the Number of Internet of Things Devices (in Billions)	44
Chapter 3		
Table 2	The Five Largest Firms in the World by Market Value in \$Billions US	65
Chapter 5		
Table 3	A Partial List of Data Facebook and Its Advertisers Gather about Users	163

### ABOUT THE AUTHOR

Vincent Mosco is Professor Emeritus, Queen's University, Canada where he held the Canada Research Chair in Communication and Society. He is also Distinguished Professor, New Media Centre, School of Journalism and Communication, Fudan University, Shanghai. Dr. Mosco completed the B.A. at Georgetown (Summa Cum Laude, 1970) and received the Ph.D. in Sociology from Harvard in 1975.

Dr. Mosco is author or editor of 23 books and over 200 articles and book chapters on communication, technology, and society including *The Digital Sublime* and *The Political Economy of Communication*. His *To the Cloud: Big Data in a Turbulent World* was named a 2014 Outstanding Academic Title by Choice: Current Reviews for Academic Libraries.

Dr. Mosco serves on the editorial boards of academic journals throughout the world and has held research positions in the U.S. government with the White House Office of Telecommunication Policy, the National Research Council and the U.S. Congress Office of Technology Assessment and in Canada with the Ministry of Communication. He was a long-time research associate of the Harvard University Program on Information Resources Policy. In 2004 Dr. Mosco received the Dallas W. Smythe Award for outstanding achievement in communication research. *The Digital* 

xii About the Author

Sublime won the 2005 Olson Award for outstanding book in the field of rhetoric and cultural studies. In 2014, the Association for Education in Journalism and Mass Communication honoured Dr. Mosco and his partner in life and in research, Dr. Catherine McKercher, with the Professional Freedom and Responsibility Award for outstanding achievement in research and activism.

### **PREFACE**

When you write, you illuminate what's hidden, and that's a political act.

— Grace Paley

Grace Paley was a great American storyteller, primarily a short story writer whose work was celebrated by critics and fellow writers alike. The consummate New Yorker, she wrote from her home in 1950s Greenwich Village about the lives of working class women, especially the daughters of immigrant families, who displayed courage and humor as they struggled to build a life of their own. Unlike Virginia Woolf, who sought a room of her own, Paley was most comfortable writing at the kitchen table amid the hubbub of life in a lower Manhattan apartment. While well recognized, her writing did not receive the credit it deserved. She was a woman working in a male-dominated field and she was a political activist who rarely passed up a progressive cause. But mainly, it was because Paley's political sensibility infused the everyday lives of her characters. If only, critics said, she would spend more time honing her craft. By this they meant: spend less time on the picket line and focus more on the transcendent and less political dimensions of life. Paley's response was that all writing is political in the deep sense of uncovering the less visible features of life.

This sensibility provides inspiration for *Becoming Digital*. It too is political in the sense that the book uncovers aspects

xiv Preface

of the digital world, which, if not hidden, receive too little public attention. Having grown my own roots in the same Manhattan neighbourhoods that Paley lived in and wrote strengthens my feeling of connection, as does the choice to write every word in the kitchens and other busy spaces that fill my everyday life.

Becoming Digital builds on my 2014 book To the Cloud, which identified some of the early steps leading to what Becoming Digital calls the Next Internet. Specifically, it provides a brief examination of today's leap into the online world by analyzing the social, political, economic, and cultural consequences of Cloud Computing, Big Data Analytics, and the Internet of Things, which are converging to create global networks of unprecedented power. It does not claim to be an exhaustive treatment. There are many excellent books that provide in-depth treatment of specific pieces of the Next Internet puzzle, several of which are identified at the end of the book. Rather, Becoming Digital offers a summary overview for those who want to learn about the digital world and its emerging challenges and potential solutions. Specifically, it is a guide to the central features of the Next Internet, including the technologies that power it, the institutions that shape it, the problems it creates, and the potential steps forward that might enable a genuinely democratic Next Internet. By this I mean a digital world that guarantees open access to all citizens and opportunities to use the network to build a better world.

I am grateful to many people for helping to make this book possible. I would like to single out a few for special thanks. Professor Isaac Serfaty-Nahon kindly invited me to give the opening address at the launch of a new Ph.D. program in Communication at the University of Ottawa. The speech afforded me the opportunity to speak about the central themes of this book and the long period of audience

Preface xv

questions and comments were enormously helpful. Thank you Professor Serfaty-Nahon and all of your colleagues and students.

For more than a decade, it has been my pleasure to work with Professor Cao Jin of Fudan University, Shanghai on numerous research and education projects. Over the years I have come to appreciate her extraordinary skill as a scholar, teacher and creative administrator. I am especially grateful for the opportunity she provided to lecture about the Next Internet in Shanghai and Chengdu in the summer of 2016. As always, you, your students and your colleagues provided a warm welcome, a receptive audience, and valuable insights that were most useful in writing this book.

I would also like to express my deep appreciation to David Flanagan, a fellow member of the Regis High School class of 1966, who kindly invited me to lecture on the Next Internet at the 50th reunion of our class. Regis High School is a Jesuit institution in Manhattan that, thanks to a generous donor, provides an extraordinary free education worth far more than my family, and the families of most of my classmates, could ever afford. Throughout my life, I have appreciated its commitment to a rigorous classical education and to social justice.

Thank you to my dear friend and former student Dr. Ian Nagy for your careful reading of the entire manuscript and to my daughter Rosemary Mosco who took time out from her own writing and activism to offer suggestions that enriched a chapter on what it means to be a citizen in a digital world.

Life is a mystery and no more so than in the deaths that bring great sadness and the births that provide unrestrained joy. Over the course of 12 months from early 2016 to the start of 2017, I lost three former students who had built successful careers as critical communication scholars and teachers. Professor Vanda Rideout was a senior sociologist at

xvi Preface

the University of New Brunswick in Canada where she was an accomplished scholar, beloved by her students, and a leader among her colleagues. I supervised Vanda through completion of her M.A. and Ph.D. degrees. She also served as a research assistant for the 1996 edition of my book *The Political Economy of Communication* and we published articles together. In addition to producing excellent work on labour and policy formation in the digital world, she was my dear friend.

Professor Gerald Coulter was a senior sociologist at Bishop's University in Quebec where he was head of the department and a leader in cultural sociology, focusing on the work of Jean Baudrillard. As with Vanda, I had the pleasure of supervising Gerry's M.A. thesis and doctoral dissertation. His sense of humor helped ease my transition from the United States to Canada in the mid-1980s and his commitment to strong scholarship led me to appreciate the excellence of graduate students in my adopted country.

Professor Mahmoud Eid was a senior communication professor at the University of Ottawa. I taught Eid at Carleton University in the 1990s and, from the start, he impressed me with his knowledge of quantitative methodology and his commitment to address the major issues facing Muslim Canadians. The last time I saw Eid was at my University of Ottawa lecture on the Next Internet. He approached me with the dignity and generosity that masked the tensions that Muslim scholars working on issues around radicalization invariably face. He left behind a loving family and a career that ended far too soon.

I am eternally grateful for having students like Professors Rideout, Coulter and Eid. I am also blessed that in a year marked by their passing, I received the wonderful gift of a first grandchild, Noelle Rose Morton. Much of this book was written between hours spent pushing a stroller around the Preface xvii

lakes of Orlando, Florida and doing what I could to live up to the reputation of Goofy Grandpa. Her arrival certainly eased the stresses that typically accompany the writing process. I can only hope that when she is old enough to make full use of the Next Internet, it is an open, democratic and universally accessible network that will help her work on the problems that her generation will undoubtedly face.