

Computer-Supported Collaborative Learning Series

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Learning In a Networked Society

Spontaneous and Designed Technology
Enhanced Learning Communities

 Springer

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Preface

As I write this at the end of 2018, strong winds of change are blowing. Technological change and, in particular, the advent of global information networks like the World Wide Web have begun less and less to appear to be utopian tools and more to be dystopian ones. Many of the battles to be fought for the future of human society are starting to appear less in the realm of individual technologies or individual social choices (whether cultural, legal, or organizational) and more to be related to the global complex system of people, information, and technology.

As scholars and the public attempt to understand the major shifts happening in our increasingly global, increasingly networked society, we have many tools at hand from social science to philosophy to systems science. Many scholars and pundits write from these perspectives on how information networks are changing democracy, civil society, journalism, social interactions, and even education.

Education has historically held a critical role in past transformations of society. In many ways, the formal structures society uses to inculcate the young serve as a bellwether: they reflect the hopes and fears of today's society; they presage the society to come. Moreover, major shifts in society have in turn produced major shifts in the assumptions, modalities, and structures of how we educate people. The Renaissance helped produce the university, and the university helped sustain the Renaissance. The Enlightenment helped produce many institutions that blended knowledge building with knowledge dissemination, from research universities to forms of public discourse. But beyond this relationship between broad change and educational institutions, we now have a new perspective: educational research.

It is only in the last hundred years or so that we have developed a scientific literature on education and on its overlooked, but more powerful, older sibling: learning. On the one hand, this field grew from the very limited and practical problem of architecting schools and formal educational settings. On the other hand, learning—one of the central phenomena of the field of education research—is not limited to such settings. In its broadest definition, learning is the process by which individual humans change their thinking and actions, whether to be more well-adapted to stable circumstances or to adapt to changes in their environment. Many in the academy believe that if they are not working with children in schools, they need not concern

themselves with what the field of education research has found. This is a deeply unfortunate, and incorrect, assumption. The study of education and, more essentially, the study of learning have profound insights to offer those who want to understand how we replicate the society of the past and how we transform into the society of the future.

The team that has put this book together has profited mightily from understanding this opportunity to connect research on technology, people, and information to research on learning. Learning scientists, people who study not only how learning happens but how to orchestrate it in all settings, have partnered with scholars from information sciences, sociology, law, and communications to ask the big question: how is learning changing in our increasingly networked society? The partnership also includes technologists—computer scientists, designers, and experts in human-computer interaction—who are best poised to understand the technical underpinnings and the possibilities associated with technological change. Together, they inquired over a multi-year and inter- and transdisciplinary research project on learning in a networked society. This book represents not only a culmination of efforts from an intellectually diverse team in one research center but also a dialogue of the ideas from that center with scholars from around the world who help connect the work to the broader themes, such as how we handle fake news, how an increasingly global information landscape is accommodated by religious groups who may mistrust dominant global perspectives, how the law shapes the way we learn from the information we have access to, and so on.

The field of CSCL and the book series in which this volume appears could easily be misunderstood to be limited to some simpler, narrower topic about kids doing classroom exercises online together. Instead, the field and this book series hew more to this more profound combination of trying to study the science and the design of information, people, technology, and, most of all, learning. The level of comfort CSCL has, with not only describing and explaining the technological winds of change and their impacts but also proactively designing the experiences people go through in response to these changes, is an asset that can be used to help address many of the intimidating challenges posed by today's technology-rich global environment. If learning is adaptation and growth, what better stance to take in the face of a rapidly evolving sociotechnical environment? Other fields do take an interventionist, agential stance with technology. Advertising and marketing attempt to manipulate consumer behavior. Videogame design attempts to produce fun and engagement. Management information systems attempts to produce corporate efficiency. But education attempts to produce individual growth, development, and fulfillment. As such, it represents a powerful perspective for influencing, understanding, and, ultimately, inventing the technology-rich future we will inhabit. If these issues and perspectives appeal to you, I recommend this volume and indeed the other volumes in the CSCL book series.

Acknowledgments

LINKS (Learning In a Networked Society) was born in the spring of 2013. A team of researchers from four academic institutions specializing in more than half a dozen scholarly disciplines and supported by a substantial grant as part of Israel's national effort to create centers of research excellence set foot to explore the vast terrain of learning in the information society.

Six years, hundreds of papers, scores of meetings, and half a dozen annual gatherings later, we are proud to present LINKS' own synergetic offspring—an edited book comprised of chapters that demonstrate what a joint interdisciplinary effort can bring about. Extending the biological metaphor allows us to acknowledge how the genealogy of academic work is expressed in this cooperative effort. Indeed, it involves parents (academic supervisors), children (graduate students), and grandchildren (their respective students), and it brings together academic marital relationships, creates new families, discovers relatives near and far (disciplinary contacts), and eventually brings about a village to grow an edited book.

In the case of this book, it took the cooperation of researchers in education, communication, sociology, information and knowledge sciences, law, health and welfare, and human-computer interaction (HCI) from the University of Haifa, Ben-Gurion University of the Negev, the Technion – Israel Institute of Technology, and the Interdisciplinary Center, Herzliya, to create the Learning In a Networked Society (LINKS) community. As editors of this book, we would like to express our deepest gratitude to all who have made contributions to this work.

First, indeed, are our fellow researchers and the institutions that supported their work: from the University of Haifa, Dror Angel, Keren Aridor, Osnat Atias, Sarit Barzilai, Hava Ben-Horin, Maya Benichou, Dani Ben-Zvi, Niva Elkin-Koren, Yoni Har-Carmel, Dorit Geifman, Oren Golan, Yotam Hod, Carmel Kent, Adi Kidron, Hana Manor, Nakhi Mishol-Shauli, Shai Olsher, Carmit Pion, Daphne Raban, Shezaf Rafaeli, Amit Rechavi, Ornit Sagy, Tamar Weiss, and Michal Yerushalmy; from the Ben-Gurion University of the Negev, Nelly Elias, Malka Shacham, Iris Tabak, and Noam Tirosh; from the Technion – Israel Institute of Technology, Yaela Golumbic; and from the Interdisciplinary Center at Herzliya, Oren Zuckerman.

We were very fortunate to enjoy the support and contributions of collaborators from all over the world, who agreed to contribute overarching insights to our collaborative work and enrich this book: Clark Chinn from Rutgers University, Ulrike Cress from Knowledge Media Research Center and the University of Tuebingen, Christopher Hoadley from New York University, and Lynn Schofield-Clark from the University of Denver. Within this international group, we are especially thankful to Christopher Hoadley—the editor of the Computer-Supported Collaborative Learning (CSCL) book series—who helped conceptualize this book and provided invaluable comments on early versions of the chapters. His interdisciplinary and historical perspective on learning in a networked society, and CSCL as a field, as expressed in the first chapter of this book served as a cornerstone in framing our arguments. We also greatly appreciate the preface he wrote.

The LINKS community was home to dozens of graduate students and postdoctoral fellows, without which it simply would not have been able to exist. We thus owe gratitude to each and every one of them for the enlightening discussions, thoughtful comments, and hard work they contributed to the joint effort.

This project and this book would of course not have been possible were it not for the generous support of the Israeli Centers of Research Excellence (I-CORE) Program of the Planning and Budgeting Committee and the Israel Science Foundation (project number 1716/12) and the invaluable assistance and devotion of Ella Fire and Liat Maoz.

Our work in the past 6 years has been nurtured with professional support from multiple figures in our institutions' research authorities. We are especially thankful to the University of Haifa's research authority and particularly to the devoted work of Sharon Link, Director; Arie Marko, Co-Director; and Nir Adelsberg, Management, who were not only committed to provide help on an everyday basis but also resourceful in finding creative solutions to administrative challenges that our multi-institutional interdisciplinary endeavor required.

We extend special thanks to the tremendous help and devotion of our project manager, Debbie Huck, the midwife of this book and the heart and soul of the LINKS community. LINKS could not have happened without her thoughtful coordination, and this book would not have come about without her organizational skills, attention to detail, total commitment, and true dedication to LINKS and its intellectual heritage.

LINKS is a dream come true. Our sincere gratitude goes to all of the fellow dreamers and travelers on this journey who made it happen.

Yael Kali (University of Haifa)

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