



ENHANCING DIGITAL LITERACY AND CREATIVITY

Makerspaces in the Early Years

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and Jackie Marsh

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AFTERWORD

Reflecting on process

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This volume encourages us to shift our focus from the products reached through the making experience to the process in which makers learn and create. While an increasing number of young children are making and creating digital media, so often in early childhood education we resist technology use and even creative uses of technologies, preferring paper, pencil, and paints over iPads and augmented reality. Equally challenging is the constraints on time for exploration and activity that leave us trying to accomplish ambitious learning goals in very short periods of time, saving very little time for open-ended making. This unintentionally stresses product over process in the time that remains. In an era of high-stakes accountability, there can be a pressure to have something to be handed to the parent, or displayed on the bulletin board, instead of recognizing that the time spent in making should be designed to foster deeper communication between the individual and their materials, regardless of the end product.

Not only is the appreciation for process over product a helpful frame for viewing the diverse forms of making across ages, cultures, and topics, but it is also a poignant reminder of how scholars and practitioners can unlock new understandings by changing the methods of the ways in which they work. This edited volume is the result of many minds working together across national boundaries and professional fields not just to share the work they've done within their respective quadrants but to earnestly synergize their understandings in order to create a new field of research. In this case, the understudied focus—the untapped potential of bringing making and digital literacies to young children—is tremendously important, though just as impactful is the unique model for field-building that Jackie Marsh and colleagues envisioned in order for this work to occur.

This project was designed very differently than most cross-institution research efforts by placing an emphasis on network-building at the center. It brought together cultural epicenters of making activity across eight countries. Across each node of the network, the project afforded ample opportunity for researchers and

practitioners to communicate and share insights, artifacts, processes, and challenges through shared writings, guest speakers, poster presentations, and the creation of this edited volume. The project also connected these individual labs of exploration within a broader international network involving people that are researching and studying in this area. This was done both by bringing a large advisory group together to view and provide feedback during research meetings, but also to place scholars within the network within residencies among other laboratories and makerspaces internationally over the span of weeks and months. This, in and of itself, is rare, providing a level of cultural exchange not commonly afforded through typical research activities. It also allowed the participants within the network to dive more deeply into the work that each other was doing, to offer an opportunity to see the unique contributions that each view makes toward a much larger understanding.

I was incredibly fortunate to have Dr. Sara Sintonen and Jasmiina Korhonen from the University of Helsinki, Dr. Anca Velicu from the Romanian Academy, and Dr. Fiona Scott from the University of Sheffield in residence with the Creativity Labs at Indiana University, where we shared our work, offered workshops, visited local early childhood programs, and developed new prototypes around making music through tracking whole-body movement through space over time. Ours was but one of several such residencies between collaborators on this volume, where professional relationships were forged between people, institutions, and projects. The accumulation of residencies like this not only lays a firm foundation for the clarity of understanding articulated in this volume, but also catapults the field forward in ways that are bound to reap the benefits of this research project in many years to come.

This focus on deepening connections within this network helped new understandings emerge. The authors of this volume undertake a radical and important re-thinking of the impact of bringing making and digital literacies to young children. By placing an emphasis on young children, this volume gives us several paths forward for viewing the role of the personal, relational, and ultimately institutional, in countering prevalent discourses on media and technology usage among children in a way that is expansive and agentic. While making is universal in nature, this is one of the first projects to understand the cross-cultural nature of making that moves beyond a set of kits and materials to how deeper pedagogies, philosophies, and educational infrastructures offer a new vision for education in the 21st century that is connected to the histories and cultures of the lives of young children.

What does this mean for the larger field of making? The process of getting people together within the network allowed the foundation built through our various collaborations to grow, not only through the project but beyond. This network of authentic relationships and engaged scholarship, forged through the process of doing this work, continues to help fuel new ideas around making across cultural contexts. Especially in an age of telecommuting and remote work, scholars across a range of disciplines should view the activity in this broader collaboration as

a way to build strong foundations and alliances toward future effort. It's through this kind of activity that change can be enacted.

In closing, this volume provides researchers, policy makers, educators, parents, philanthropists, and makers with high-quality research, methods, and theoretical understandings to shape the future of making. As we face the fourth industrial revolution, it becomes apparent that young children need to be ready to become creative problem solvers around their use of technology. While this book pushes our theoretical understandings forward to help us better understand this increasingly tech-immersive world and the experience of young children within it, the roots in Vygotsky and Activity Theory across many of the chapters remind us of what should be perennially preserved in high-quality learning experiences through making, both in- and out-of-school. My hope is that this volume will arm you with the means to defend what is already working in your makerspaces or, alternatively, to inspire something new; to bring the world of making and digital literacies to your school or your household.