

METALITERACY

IN A CONNECTED WORLD

Developing Learners as Producers

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and TRUDI E. JACOBSON

Foreword by Jako Olivier

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FOREWORD

LEARNERS ACTING AS PRODUCERS OF INFORMATION IS NOT A NEW NOTION; HOWEVER, the way this form of student agency is realized has evolved significantly over time within the wider educational context. In this exceptional publication, Thomas P. Mackey and Trudi E. Jacobson continue with their scholarly journey of unpacking the concept of metaliteracy, which has evolved from a framework for information literacy to a powerful and dynamic pedagogical model.

I had the privilege to host these two remarkable authors at the North-West University, South Africa, when they presented a keynote address as part of our International Conference on Information Literacy. This visit has since led to cowriting a chapter with them on aligning metaliteracy with self-directed learning in order to expand assessment opportunities. I am delighted that self-directed learning also features in this book as this is an essential element for successful education, especially in contexts where learning is mediated through technology.

The focus on metaliterate producers in the classroom prompts associations with constructivist ideals where learners actively construct meaning and knowledge in the learning process. In an age where digital content is central as learning resources, the need for metaliteracy is becoming increasingly relevant. Here, unlike with other literacies, the emphasis is on not only metaliteracy for learning but also metaliteracy as learning.

The book aptly starts off with the emphasis on the learner as the focal point of metaliteracy. Here the epistemology of this concept is constructed from a foundation where the learner as producer in the learning space is emphasized. In drawing on a well-structured conceptual framework, informed by social constructivist theories, metaliteracy is artfully crafted as a knowledge producing and learning vehicle.

Interpreting metaliteracy in the context of multimodality and specifically multimodal learning allows for rhizomatic exploration of metaliteracy in terms of different modes of communication and learning. As learning is increasingly

negotiated by means of multimodal online texts, this book masterfully enriches the scholarship of multimodality.

This publication's inclusion of issues around open education and specifically open pedagogy shows the importance of responsible reuse of existing content and how learners should be encouraged to contribute to knowledge sharing. This publication provides many insights regarding the intersections between metaliteracy and open education that may have value beyond the Global North. A significant contribution is the way in which non-disposable assignments can act as a conduit for metaliteracy praxis in an open education context. This metaliteracy praxis is made even more concrete with a chapter focusing on how a metaliteracy course can be designed in order to engage informed producers.

Toward developing metaliteracy citizens who have growth mindsets, this publication advocates for the development of learner-producers who are flexible, adaptable, and self-directed. The focus on designing learning strategies in order to reach lifelong personal and professional goals, specifically in terms of learners becoming information producers and digital citizens, shows how the affordances of metaliteracy extend beyond the confines of formal education. This publication provokes readers to consider their own metaliteracy and roles as producers or being able to foster their students as information producers.

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PREFACE

THIS FOURTH METALITERACY BOOK EXAMINES THE CENTRAL ROLE OF LEARNERS AS information producers, a foundational idea for the metaliteracy framework and a theme that is garnering great interest in higher education.

Today's learners aspire to produce information in multiple forms, including writing, video, podcasts, digital media, digital stories, presentations, and maker objects. As educators, we support the development of learners as producers by advancing metaliteracy and the ethical production of new knowledge. This reflective and collaborative pedagogical process takes place in such wide-ranging settings as classrooms, makerspace communities, virtual environments, open and online courses, art studios, and performance spaces. In today's connected world, the application of these ideas requires a reinvention of practice that shifts from an emphasis on discrete skills to the development of a metaliteracy mindset. This broader perspective involves individual and collaborative strategies to inspire new directions in teaching and learning.

Throughout this book, we explore the pedagogy of preparing metaliterate producers by building on our previous research and expanding the metaliteracy framework in theory and practice. We visualize the latest and most fully developed iteration of the metaliteracy model with an integrated diagram and several interrelated figures. This conceptualization of metaliteracy places the metaliterate learner at the center of four related domains, several aspiring characteristics, and interrelated roles that reinforce the responsibilities of being an informed producer. Metaliteracy is discussed in practice through inventive learning scenarios that model the application of the associated goals and learning objectives.

In the following six chapters, we connect the core components of metaliteracy with the comprehensive view of what is expected from a learner who strives to be a responsible and empowered metaliterate producer of information. Metaliteracy's comprehensive and unified pedagogical theory prepares learners to effectively produce and share original and remixed information while applying

metacognitive reflection to this process. This overview of the chapters provides a snapshot of the topics you will explore while reading the book. The first half of the book is primarily theoretical and presents the latest iteration of the metaliteracy model, connects metaliteracy to multimodality, and explores the relationship to open pedagogy. The second half of the book offers multiple scenarios for metaliterate learning in open pedagogical settings, in online course design, and in developing a growth mindset. Collectively, the book's chapters offer a number of reliable takeaways that are transferable to a multitude of disciplines and settings.

Chapter 1: Metaliteracy for Empowering Learners as Producers

This first chapter explores metaliteracy as a pedagogical model that develops learners as producers through the intersections of critical thinking, metacognition, and self-directed learning. Metaliteracy is discussed as a comprehensive framework that reimagines information literacy and influenced the ACRL (2015) *Framework for Information Literacy for Higher Education*. Several learning theories are explored that emphasize the foundational idea of the producer role in relation to knowledge production, metacognitive thinking, social learning, and the scaffolding of learning. This chapter presents the latest iteration of the metaliteracy model that illustrates the refinement of these ideas over time. The model is visualized through a conceptual diagram that features the learning domains (affective, behavioral, cognitive, and metacognitive), characteristics (such as informed, productive, and collaborative), and active learner roles (including producer, researcher, and teacher). These essential elements are reinforced by the adaptable goals and learning objectives that work together as a unified model in practice. This chapter describes the process of developing a metaliteracy mindset to prepare individuals as responsible content creators in a connected world.

Chapter 2: Engaging Metaliterate Producers through Multimodal Learning

Metaliteracy is discussed in relation to the theory of multimodal learning to explore intersections between both models. This second chapter provides several definitions of multimodality with an emphasis on self-directed learning, making meaning, and social semiotic theory. Anthony G. Picciano's (2009) "Blending with Purpose" model for multimodal learning is discussed in detail and compared with several of metaliteracy's learning objectives. As part of this analysis, learning activities for both metaliteracy and Picciano's blended model for multimodality

are compared as well. The second half of the chapter offers specific examples that illustrate the application of metaliteracy through multimodality, such as text, hypertext, digital storytelling, virtual worlds, and maker-centered learning. The consumer-producer dynamic is explored as a synergistic relationship between two interrelated roles that shift learner responsibilities from passive to active. By investigating the blending of modes through metaliteracy and multimodality, this chapter offers a theoretical perspective for combining modalities in practice while advancing a multifaceted and reflective approach to teaching and learning. Readers will be able to adapt these ideas to a wide range of modes and disparate settings that may be technology mediated, in person, or combined in novel and meditative ways.

Chapter 3: Metaliteracy and Open Pedagogy

Open pedagogy involves a shift in the traditional roles of teacher and learner and of content and practice. It involves the reimagining of learning opportunities in which open educational resources are used/reused/created, collaborations are enhanced through technologies, student knowledge creation and sharing are highlighted, and learner empowerment occurs (Cronin & MacLaren, 2018). The notable connections between open pedagogy and metaliteracy in relation to the concept of learner as producer are explored in this chapter. Metaliteracy also provides a method of scaffolding open educational practices, encouraging students to understand and embrace their active roles in this type of educational setting. It is not necessarily easy to move from the recipient of information and “learning” to an engaged codirector of one’s own learning. The expanding use of open educational resources (OER) provides much potential for open pedagogy, which highlights the pertinence of this chapter for educators.

Chapter 4: Developing Metaliterate Producers Using Open Pedagogy

This chapter analyzes four courses in which metaliteracy and open pedagogy coexist in distinct permutations pertinent to the courses’ learning objectives. The courses, a first-year writing and critical thinking course, a political science course, an information literacy course, and a first-year experience course, represent different degrees of open pedagogy and different uses of metaliteracy. The course that engages these frameworks most strongly is Information Literacy in the Humanities and Arts, which involves students in the creation of content for Wikipedia.

The intersection of metaliteracy and the ACRL (2015) *Framework for Information Literacy for Higher Education* in this course provides a model of how to apply these related ideas in practice to encourage learners to be producers. Students' response to this role in a collaborative environment that emphasizes metacognition provides a case study that reflects the book's themes. The first-year course and the political science course provide examples of discipline-based applications with varying degrees of integration, and the first-year experience course includes an entire metaliteracy module and an open, non-disposable assignment that led to the creation of a website for other first-year students.

Chapter 5: Designing an Online Metaliteracy Course to Engage Informed Producers

This next chapter explores the development of a special-topics course at SUNY Empire State College that links to a post-truth MOOC (massive open online course) in the Open edX platform. The grant-funded MOOC project was supported by the State University of New York (SUNY) and designed by an expanded team of colleagues in the Metaliteracy Learning Collaborative, a research and development partnership led by this book's authors. The chapter provides a literature review that explores post-truth terminology and associated issues such as echo chambers, filter bubbles, and algorithms. The credit-bearing course in the Moodle learning management system (LMS) links to and aligns with the content in the post-truth MOOC. Both environments were developed with metaliteracy OER and the integration of the metaliteracy goals and learning objectives. As this descriptive analysis shows, students who successfully completed the course applied metaliteracy while researching post-truth issues and producing a culminating digital project. Adaptable learning activities showcase how to apply these ideas and specific metaliteracy OER in practice while developing metaliteracy characteristics in learners.

Chapter 6: Developing Productive Metaliterate Citizens with Growth Mindsets

This last chapter explores how metaliteracy encourages individuals to develop the dispositions and reflective capabilities that promote openness to learning and the assurance to be effective digital citizens. Continued growth is vital throughout our lives as we live enveloped by an ever-evolving information environment. To be fully engaged, individuals must exhibit the flexibility needed to adapt as well

as the propensity to engage in continuous learning which eases that adaptation. Much of what we do in our lives involves producing and sharing information in participatory settings. This chapter, therefore, considers how metaliteracy might be used to foster a growth mindset that enhances responsible information production as a digital citizen. We explore self-directed learning and critical thinking, which are foundational to the intersection of metaliteracy, a mindset that strives for growth, and digital citizenship. The chapter concludes with a number of flexible learning scenarios that may be adapted and used in a range of learning situations.

We found ourselves inspired and invigorated as we wrote this book. The opportunity to reflect on pedagogical topics such as multimodality, open pedagogy, and self-directed learning that align extremely well with metaliteracy opened up new avenues for research and practice. We appreciate your interest in these topics and hope that this book will inspire you by suggesting ideas for your teaching. Please let us know if you would like to share your and your students' adventures motivated by this book on the *Metaliteracy.org* blog.

REFERENCES

- ACRL Association of College and Research Libraries. (2015). *Framework for information literacy for higher education*. American Library Association. <http://www.ala.org/acrl/standards/ilframework>
- Cronin, C., & MacLaren, I. (2018). *Conceptualising OEP: A review of theoretical and empirical literature* [Paper presentation]. Centre for Excellence in Learning & Teaching, National University of Ireland, Galway. https://schd.ws/hosted_files/oeglobal2018/ff/Conceptualising%20OEP.pdf
- Picciano, A. G. (2009). Blending with purpose: The multimodal model. *Journal of Asynchronous Learning Networks JALN*, 13(1), 7–18.

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