The story of the Dublin Core is inextricably woven into the history of the Web, a metadata system conceived as a means of improving discovery at a time when the entire web consisted of perhaps 500,000 addressable resources. The naivety that characterizes our early efforts approaches the quaint: Can we identify a simple set of descriptors that authors might use to make their intellectual assets more discoverable, and therefore more accessible?

What we could not have envisioned in those earliest workshops was that the element set that took shape was but a small part (and perhaps the easiest part) of our achievement. The larger challenges were meeting the diverse needs of the many stakeholder communities that coalesced around the Dublin Core. These stakeholders were (are) as diverse as the Web itself, and to build an infrastructure that would serve their resource description needs has been an ongoing task of daunting proportion.

Diversity demands an approach to metadata that honors extensibility. From the first beginnings the community struggled to create a metadata architecture that made it possible to support multidisciplinary interoperability while providing the means to extend and enrich metadata to meet the specialized needs of any given community.

Doing so turns out to be a challenging objective that requires unambiguous specification of semantics that are both human-readable and machine-processable. Practitioners need to register, discover, declare, and reuse metadata terms and specifications in a world of decentralized metadata and web systems that continually undergo change. Dublin Core Application Profiles are the technical and social engineering response to this challenge.

The chapters in this book emerge from projects in the UK, Germany, Greece, Portugal, Spain, Brazil, and the United States. They cover projects that include scientific data repositories, metadata design, archive description and management, learning object repositories for education, engineering data management, and metadata systems to support non-governmental organizations. We see in these efforts examples of the diversity of domains, of functional requirements, of approaches to metadata, even of political philosophies. They represent a microcosm of the larger metadata world and the challenges of finding common descriptive properties on
the one hand, while supporting the semantic detail that is essential to the richer descriptions necessary within a discipline or domain. The authors hope that their efforts and explanations will serve as guideposts for the next generation of metadata designers and practitioners in this ongoing challenge.

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