Chapter 14
What’s Past is Prologue: A 15-Year Review of Digital Archives Program in Taiwan

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ABSTRACT
This chapter gives a comprehensive review of Taiwan’s Digital Archives Program, built on a national scale over the past 15 years. Currently more than 100 libraries, archives, museums, academic institutions, and government agencies are involved, and the program has created more than 5 million digital objects as well as more than 700 databases and Websites. This chapter investigates the goals and strategies of the program, probing into research and development, important achievements, values, lessons, and challenges in 6 aspects, including digital contents, digital technology, metadata interoperability, applications, industrialization development, and international cooperation. Although this national program was officially terminated at the end of 2012, the accumulation of digital contents, core technologies, and digital infrastructure over its lifespan makes it certain that one can look forward to its continuing impact upon open data, digital humanities, and sustainable digital archives.

INTRODUCTION
National digital archives program in Taiwan, starting with the digital museum project from 1998 and continuing through the Taiwan e-learning and digital archives program of 2007 to 2012, represents one of the seven concurrent national-scale technology initiatives funded by the national science council.1 As with similar projects, such as Europeana or the United States’ National Science Foundation (NSF) sponsored digital library initiatives, the main goal for Taiwan’s digital archive program has been to carry out the digitization of the country’s valuable cultural heritage and natural history collec-

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tions, in order to facilitate integration of rich content and archival technology with education, research, industry, society, and international development, and to help construct a nurturing and technologically advanced environment for content creation. More than one hundred libraries, museums, archives, academic institutions, government departments and agencies, and universities participated in the digital archives program at large. The program has produced more than five million digital collections, with topics covering the arts and humanities, history, social sciences, and life sciences; all are compiled into the union catalog for public use. Compared with the digital library initiatives (dli) sponsored by the NSF in the U.S. and the Electronic Libraries Programme in the United Kingdom, Taiwan’s digital archives program has received a greater commitment of time and financial resources, and has produced superior achievements in integration (the National Science Foundation, 2002; Mischo, 2004; Whitelaw & Joy, 2000; Pinfield, 2004; TELDAP Program Office, 2012a). In this chapter, developmental priorities, features, and achievements in different phases of the national digital archives program in Taiwan will be analyzed and discussed. The main research material encompasses the program’s technical reports and achievement Websites, which will be organized, observed and analyzed.

THREE-STAGE STRATEGY OF THE DIGITAL ARCHIVES PROGRAM

Based on its timeline and budget allocation, national digital archives program in Taiwan proceeded through three different stages: the short-term Digital Museum Project (1998-2002); the long-term National Digital Archives Program (2002-2006), focusing on digitization; and, the Taiwan e-Learning and Digital Archives Program (2007-2012) focusing on value-added application.


The Digital Museum Project started in 1998 with the goal of building digital museums with local characteristics, in order to develop the educational impact of the Internet in Taiwan. The project was supported by a bipartite organizational framework. The Digital Museum Task Force Promotion Project was established at Academia Sinica during the initial period, and made responsible for matters related to planning and promotion. Later, the Digital Museum Task Force Project Office was established at the National Taiwan University as the management and coordination center. Scholars and professionals from both institutions participated in the executive unit. Three types of project groupings were established under this Project Office: the “Digital Museum Project Promotion Office” for promoting digital contents; the “Technology Support Project” for developing metadata standards, digital technology, digital data, and temporal and spatial integration technology (with six sub-projects); and, the “Theme Project” consisting of 34 sub-projects to develop a variety of thematic Websites (TELDAP Program Office, 2010a).

In this period, the project met its strategic goals through the development of advanced digital archives technology and the construction of thematic contents, demonstrating and promoting the results to academic and educational communities, as well as the public, through digital museums. The project of “Digital Museum of Taiwan’s Social and Humanities Video Archive,” for example, included: the digitization of audio and video data; the in-depth analysis of metadata; the construction of an integrated supportive environment for indexing, streaming and distribution; video shot detection; the development of new watermarking technology; technical support systems, etc., which are developed jointly by professionals and scholars from the social sciences, humanities, and information science (Wang, Fan, & Ho, 2003). At the same