

Perspectives on the Value of Software Preservation



Two Primary Perspectives on Value



Joel Wurl, National Endowment for the Humanities

As a funding agency that supports the work of cultural heritage institutions in preserving and creating access to humanities resources, often in digital form or through the use of digital technology, we have a two-fold interest: **1) Legacy software could have a bearing on digital preservation efforts that focus on emulation**; digital preservation is a key strategic interest area for NEH's Division of Preservation & Access. **2) The history of software development is an area of potential** – perhaps emergent – **research interest** in the context of the history of science and technology; primary source information on this topic could be of increasing value to computer historians.

Stephen Abrams, California Digital Library

We view the stewardship of software as the continuation of our long-standing collection development policies, which encompasses all content that supports the research, teaching, and outreach mission of the University. We believe that software is curatorially-important in **two senses**: (1) **As historically-situated technological/cultural artifacts in their own right**; and (2) **As technological intermediaries necessary for the effective use and exploitation of other digital assets**, e.g., for purposes of content creation, transformation, rendition, analysis, etc.

More Situated Values for Software Preservation



Anne Goodyear, National Portrait Gallery

At the Smithsonian, I am involved with the Institution's Time-Based and Digital Media Working Group. We are interested in preserving software (and hardware) for the purpose of **maintaining the authenticity of works of art**



John Kelly, NASA

Within NASA we have missions and analytical models that span decades. Data collected by instruments may be several decades old but still need to be incorporated into modern models. Good data definitions help, but when they fall short; access to original program code and equipment may be needed. There are **three components of software preservation from NASA's perspective: programs, data, & equipment.** Of the three NASA has made a considerable effort in data. We are responsible for the long term archiving of and preservation of all of the Agency's space science data (via National Space Science Data Center (NSSDC)). The preservation of software programs and equipment garners less attention, although the **increased reuse of software in the past decade within the Agency has demonstrated significant benefits.**

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Alice Allen, Astrophysics Source Code Library

As with many sciences, astronomy research depends increasingly on computational methods, and these methods are often not revealed. This decreases the **reproducibility, verifiability, and transparency of research**. The main goal of the ASCL is to increase the transparency of astrophysics research by making codes discoverable for examination. Some of the software I'm interested in is old, but some of it is new; **new astronomy source codes are as at risk as old ones and are ever more prevalent.**

Otto de Voogd, Mozilla

Mozilla preserves prior versions of its software, both executable versions and source code, which can be **useful to verify when and how bugs and features have been introduced**. In general software preservation can contribute to the **preservation of knowledge, reuse of old code, access to old formats, and the discovery of prior art**.

Amy Stevenson, Microsoft Archives

At the Microsoft Archives, we are in the unique position of having an entire collection positioned around software. It IS the heritage of our company. While we don't run old software every day, we do use the rest of our software-centered collection for research almost every day, be it pictures, video, documents or marketing materials related to our various products. **Software code is our IP**, like the recipe for Coke, heavily guarded in a vault. **We use the history of our software to connect with Microsoft's users, to support litigation issues, to support PR efforts** (our own as well as outside journalists), and to **connect with our own employees.**