

OLGADO, Benedict S.
N16235658

Format History – Outline:
Sony 2” Helical

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Ann Harris

Paper Abstract

This paper traces and analyzes the historical emergence, existence and eventual obsolescence of the Sony 2” Helical video format within technological, economical and social contexts. Given such historical background, the paper further discusses the preservation issues and concerns regarding the format today.

Introduction

The paper begins by stating the scope and objective of the paper, which is to discuss and analyze the history of the Sony 2” Helical video format within technological, economical and social contexts and the preservation issues it faces today given its obsolescence.

An overview of the format and some of the topics to be discussed in the paper is given. This includes briefly the background of the time period of the format (1963-1975), the recording mode (analog a/v, helical scan, non-segmented picture), the known distinguishing properties of the technology, the two inch tape and its playback devices (Sony PV 100, 120 and 120U), the primary usage and content (airline in-flight movies, educational purposes, industrial training), the reasons for its obsolescence and the main preservation issues of it today. This paragraph gives a précis about the format and an outline of how the paper flows.

Technological Context

This section focuses on the technological history, advancement and obsolescence of the Sony 2” video format. Beginning with Charles Ginsberg and the development of the videotape recorder (VTR).

This continues on with a discussion on the immediate technology that predated and brought about the format. The Quad format is discussed in terms of its technical properties, specifically highlighting the strengths and weaknesses of this technology.

Presenting the quad format sets the stage for the discussion of the helical scan recording and how it came to be starting from its invention by the Toshiba Corporation. Initial comparisons between the quad and helical recording systems is made.

From this technological foundation, the history traces how Sony (together and in conflict with Ampex) utilized this invention starting from their first experimental 2” VTR (SV-201), to their first transistorized VTR that is the PV 100 and the eventual Sony Helical 2” machines that stayed in the market for a considerable time which are the Sony PV120A series and PV 120U.

Taking a closer look specifically at the parts, properties and processes of the Sony PV 100, PV120A and PV 120U, the paper points out the technological pros and cons of the format.

Taking the pros-cons, the technological context section concludes with how technology progressed working on the innovations brought by the format and how the weaknesses of the format led to its obsolescence with new competing technologies, mainly Umatic and eventually the Betamax and the VHS.

Economical Context

This section focuses on the economic history and market conditions that the Sony 2” video format entered, worked in and pulled out from.

Discussion starts with the television industry and the need for pre-recorded shows which drove investments towards video recording technology. The market for small-scale institutional and corporate video video recording is also be included in the discussion.

With these economic background, the paper presents how the Sony 2” video format entered the market and why it was economically viable during its period of existence. The Sony Videoflight Inc., a subsidiary of Sony which utilized the 2” format, is used as a case study to discuss the format's place in the market and eventual fall off.

Social Context

This section focuses on the social utilization of the format in terms of identified users, environments and known contents associated with the Sony 2” video.

Following the discussion on the format's market viability, the paper identifies the main users of the format and the primary purpose it is used for, including the undermentioned Videoflight Inc. Also in particular the university language laboratories in Texas during the early 70s is looked into as a case study.

Closing this section is a look into the changing social needs at that time that drove the market away from the format and brought the eventual end of its usage.

Preservation Issues

This section focuses on issues and concerns regarding the preservation of this obsolescent format. In particular it looks into the preservation issues surrounding the carrier and the playback technology.

A preservation endeavor on the format done at DC Video in Burbank, California serves as a case study for this section.

Closing Statement

The paper is concluded by situating the Sony 2” video format history in the larger landscape of moving image technology with regards to interrelated generative mechanisms & contexts, obsolescence and preservation.

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