Abstract - Fernandez

Improving the lives of zoo animals with digital technology: A historical and empirical perspective

From the start of the environmental enrichment movement in zoos, the use of technology has played an important role in improving the lives of animals. Starting with the work of Dr. Hal Markowitz and colleagues, animals were given electromechanical devices to play with and operate, in some cases in conjunction with visitors, in order to provide for their welfare. Surprisingly, much of this work a half a century ago is still cutting-edge for zoos, which have been reluctant to adapt technological advances into their regular husbandry and care for animals.

In the following talk, I will examine the use of technology as it has been and can be adapted for zoos. Beginning with some of the early historical advancements, this talk will examine technological use as it has been applied for three purposes: (1) to provide enrichment for zoo animals, both as a form of interactive and non-interactive enrichment, (2) to improve exhibit spaces and design, particularly in the form of providing animals with improved choice and control, and (3) the ability to monitor the welfare of animals, including through the use of software. In all three examples, I examine the role of science to both assess and improve the lives of zoo animals. In short, this talk is aimed at examining how we can use technology and its data-based quantitative counterpart to help make the modern zoo truly a modern enterprise.

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