Project SALINE

Salish Aquatic Learning & Insights Network Ecology

Enhancing Collaborative Learning Between Institutions Through the Power of Human Connection

Background & Opportunity

Connected learning ecologies can amplify learning outcomes for museums, visitors, and communities.

A *learning ecology* is the physical, social, and cultural context where learning occurs. Ecological approaches to learning emphasize the need to make connections across formal, informal, and everyday education (Bevan 2016). Museums can meaningfully contribute to broader learning ecologies, alongside schools, libraries, community centers, and other information sources. However, due to many constraints, individual museums often operate in isolation and do not create connected learning experiences with other institutions. The root cause of this issue is a need for several key elements: consistent funding, sufficient staff to develop and maintain learning content, internet-connected technologies, and dedicated implementation support.

What is SALINE?

At its core, SALINE is a comprehensive, modular, expandable connected learning solution. SALINE combines an audio-visual hardware and software communication system, an online Learning Management System (LMS), and a customized interactive online curriculum.

In a post-pandemic world, it is essential to create opportunities for meaningful and sustained human interactions to help foster learning. Human connection is vital because it exposes students to new learning approaches and builds relationships that increase understanding and success (Kwaske & McLennan 2020; Siemens 2005).

SALINE can connect and help facilitate collaboration between any combination of institutions, experts, and formal and informal learners in any location. More than simply projecting experts into classrooms, SALINE provides the necessary tools to foster human connection and collaborative learning.

Process

The SALINE learning platform was created and led by Aaron Nather. The University of Washington, MaST Aquarium, Why Not You Academy (WNYA), and SR^3 collaborated to create the prototype learning experience in SALINE, with the generous funding support of foundry10. The platform includes interactive whiteboards, advanced webcams, and conferencing software connecting the physical learning sites. Dr. Jennifer Murphy created a special online interactive curriculum, *Marine Mammals of the Salish Sea*, hosted on the Canvas learning management system (LMS).

Today, students at WNYA enjoy collaborative learning with the three institutions.

Reflection

SALINE solves many challenges with designing, implementing, and sustaining learning ecologies. Key insights emerged during the project. 1) Choose suitable hardware and software that are easy to use with minimal training. 2) Sharing an LMS across institutions and learners is only possible when one location hosts and administers the LMS. 3) When evaluating, craft questions that isolate the online aspects of the platform to inform improvements. 4) Technology doesn't guarantee engagement. Always aim to ensure content is highly relevant and interesting to learners.

Tailored curriculum in Canvas LMS. Works on all platforms and devices

Purpose & Impact

The SALINE platform was used to create a prototype for a new education and outreach program that enhances the best of the MaST Center Aquarium's content, WNYA's classroom setting, and the SR^3 lab environment. The prototype connects multiple organizations and experts to facilitate real-time connection and collaboration with young learners.

In the future, SALINE can benefit even more learning communities, schools, museums, non-profits, schools, and businesses to better foster the human and environmental connection to fuel a joyful, lifelong learning journey for everyone.

Siemens, G. (2005, January). *Connectivism: A Learning Theory for the Digital Age*. https://www.itdl.org/Journal/Jan_05/article01.htm

Bevan, B. (2016, March). *STEM Learning Ecologies*. National Science Teaching Association. https://www.nsta.org/connected-science-learning/connected-science-learning-march-2016/stem-learning-ecologies

Kwaske, I., & McLennan, K. (2020, May 19). *Why Social Interaction is Important in Online Learning*. Tulane School of Professional Advancement. https://sopa.tulane.edu/blog/why-social-interaction-important-online-learning

Learn more about Project SALINE partners:

MaST Aquarium - mast.highline.edu
UW Museology - washington.edu/museology
foundry10 - foundry10.org
Why Not You Academy - wnyacademy.org
SR^3 - sealifer3.org