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LIB LAB the Library Laboratory: hands-on multimedia science communication<sup>1</sup> AARON FILLO, KYLE NIEMEYER, Oregon State University; School of MIME — Teaching scientific research topics to K-12 audiences in an engaging and meaningful way does not need to be hard; with the right insight and techniques it can be fun to encourage self-guided STEAM (science, technology, engineering, arts, and mathematics) exploration. LIB LAB, short for Library Laboratory, is an educational video series produced by Aaron J. Fillo at Oregon State University in partnership with the Corvallis-Benton County Public Library targeted at K-12 students. Each episode explores a variety of scientific fundamentals with playful experiments and demonstrations. The video lessons are developed using evidence-based practices such as dispelling misconceptions, and language immersion. Each video includes directions for a related experiment that young viewers can conduct at home. In addition, science kits for these at-home experiments are distributed for free to students through the public library network in Benton County, Oregon. This talk will focus on the development of multimedia science education tools and several techniques that scientists can use to engage with a broad audience more effectively. Using examples from the LIB LAB YouTube Channel and collection of hands-on science demonstrations and take-home kits, this talk will present STEAM education in action.

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