

Title: Back to school using teaching tech to tackle marine plastic waste

Authors: Martin, SA and AJ, Ribbink

Affiliation: Sustainable Seas Trust under the African Marine Waste Network project

Background:

Experts at the inaugural African Marine Waste Conference identified education as one of the highest priorities if Africa is to meet its challenges of plastic waste. The African Marine Waste Network (a project of Sustainable Seas Trust; SST) has set the target of Zero Plastics to the Seas of Africa. To achieve this the focus is on education, capacity building and facilitation of skills transfer in secondary and tertiary education institutions, in research organisations, in governments, as well as industries of Africa.

The challenge is to facilitate resource transfer and interactive learning on a continental scale, in a manner that also caters for differences in language, culture and socio-economic circumstances. The emerging African Waste Academy (AWA) is striving to draw the knowledge and skills of Africa together and to add to these the skills that people have attained on other continents.

Methods:

A technology solution is e-learning which has the exciting ability to provide a variety of educating and learning processes and facilities online. Rather than a separation of the learner from the educator and a high degree of independent study in traditional online distance learning, e-learning provides a platform to bring the learner and educator together despite their physical separation. This is achieved through shared, interactive education content, teacher/learner interaction via tools such as webinar, multi-media presentations, courses and so on, all available on an online platform. E-learning increases learning quality and efficiency by allowing easy access to education facilities and services online.

The primary roles of the AWA are to provide easily accessible education resources accommodating the needs and requirements of multiple sectors; targeting educators, learners, researchers, business people, industry experts and provincial and national government across Africa. It is envisaged that an e-learning programme be provided by the AWA, providing waste and sustainable waste management education resources and materials, and providing internationally recognised courses to enrollees from Africa and other continents. International accreditation for such courses will be developed and all AWA programmes and resources will be adapted to different languages and cultures. In addition, the AWA will be a coordinating body to manage student and expert exchanges between Africa and the other continents to promote skills transfer, to coordinate scholarships and internships and to organize a series of top-class expert lectures and informative films to be beamed to Africa, through webinar facilities, each year.

Results:

The AWA hosted its first webinar series in February 2019, inviting experts from South Africa, Ghana and France to share their research via the webinar platform GetResponse. The

webinars were successful in providing knowledge and skills transfer to attendees who tuned into the webinar series from eight different countries from around the world. The attendees provided valuable input and interaction with the speakers and networking and collaboration opportunities were provided to both the presenters and attendees through the webinars.

The Young Leaders and Expert Exchange programme was launched in January 2019, where the African Marine Waste Network (AMWN) acted as a host to three exchange participants: an Association of Commonwealth Universities Blue Charter Fellow, PhD candidate Steve Allen from the University of Strathclyde; Dr Deonie Allen from the University of Strathclyde and Shannah Leenheer from the Radboud University. The AWA assisted the exchange participants in meeting their research goals and requirements. The exchange participants contributed to capacity building, knowledge and skills transfer within the AMWN team and partnering institutions.

Conclusion:

Initial results suggest a bright future for the AWA which will provide multiple learning and networking platforms for educators, researchers, industry and government across Africa. The ideal outcome for the AWA is a well informed and skilled African society working together towards Zero Plastic into the Seas of Africa.