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Creators for the Earth:

The Academic Library's Role in Supporting Sustainability Creators and Practitioners Across All Disciplines

Jennifer K. Embree and Neyda V. Gilman

INTRODUCTION

The image of a creator often brings to mind individuals that can take an abstract or unique idea and transform it into an impressive, tangible creation. Whether it's an architect crafting a new building design, an artist painting on canvas, or an interior designer mapping out a new room layout, creators are generally seen as those who can formulate conceptual ideas that are then realized to showcase amazing ingenuity. In the world of higher education, this type of work is often first associated with disciplines like art, design, architecture, and engineering—fields where acts of "making," "creating," or "building" are integral to their purposes. However, this chapter invites readers to think beyond these more well-established creator fields to consider another field where creators are equally needed, supported, and produced: the field of sustainability and sustainable development.



SUSTAINABLE DEVELOPMENT, CREATIVITY, AND HIGHER EDUCATION: THE CASE FOR SUSTAINABILITY AS A "CREATOR TRACK"

Sustainable development is often more generally defined as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs."¹ However, in the realm of education, UNESCO defines "Education for Sustainable Development (ESD)" more descriptively as "empower[ing] learners of all ages with the knowledge, skills, values and attitudes to address the interconnected global challenges we are facing, including climate change, environmental degradation, loss of biodiversity, poverty, and inequality."²

When applying UNESCO's definition of ESD to the realm of higher education, sustainable development is an extraordinarily interdisciplinary and versatile field of study. Sustainable development can be incorporated into more practice-based disciplines, such as urban planning, landscape architecture, and natural resource management, as well as more traditionally research-based disciplines, such as pathobiology, ecology and evolutionary behavior, and environmental science. Due to its inherent interdisciplinarity, terms like "sustainable" and "environmental" are also beginning to appear more and more frequently in new titles for majors, minors, and graduate programs in a variety of departments across the country. For instance, Binghamton University now offers a "Sustainable Communities" master's program, while also offering eleven additional majors and minors related to environmental studies or environmental science,³ and just in the past year, the University of Montana reported that they had over 100 students join their newly created Environmental Science & Sustainability degree, which was first launched in their fall 2021 semester, and it is already "on track to be the second-largest degree in ...[their] College of Forestry and Conservation."⁴ Even more specifically, the University of Iowa has announced that it will be adding a new sustainability program to its already impressive slate of similar programs focused entirely on addressing the United Nations Sustainable Development Goals (SDGs).⁵ Beyond the human imperative, as institutions fundamental to higher education, it behooves libraries to attend to sustainability.

Overall, the areas of study in higher education focused on sustainability and/or sustainable development are only growing and will most likely continue to do so as our global societies grapple with issues such as climate change, environmental devastation, mass extinction, climate migration, and environmental justice. Sustainable development education is also not subject to its own separate and siloed programs in the same way as more "traditional" programs may have been in the past. Instead, it spans disciplines, colleges, and areas of study. Programs related to sustainable development can be found in engineering schools (e.g., environmental engineering, renewable energy and systems, etc.) in the liberal arts (e.g., environmental studies, sustainable communities), and still more in the agricultural sciences, public health, business, etc. However, despite the widely varying tracks in which sustainability is being incorporated, one common thread exists among virtually all of these disciplinary approaches: creativity. Creativity, defined by British author Ken Robinson as "imaginative processes with outcomes that are original and of value,"⁶ is essential to effective sustainability education and development. As Hans d'Orville, former assistant director-general of UNESCO for strategic planning, states, "Creativity is at the heart of sustainability. [It] is rooted in sustainable social, economic, environmental and cultural practices. It can mean anything from humanity's ability to transform itself to tackling specific problems."⁷

As d'Orville implies, the cultivation of a creator's mindset is central to sustainability. In order to incorporate sustainability into any discipline, field of study, or prospective career path, it is essential to think creatively to craft new ideas, reevaluate and restructure existing operations and practices, and erect new models in order to transform how we live and how we support our environments to create a more sustainable future. Therefore, students from all disciplines that incorporate sustainable practice are simultaneously being trained to become creators and thus have specific needs that can be uniquely supported by academic libraries and librarians.

This call for cultivating creativity in sustainability education to help students develop a creator mindset has gained traction in the academic literature over the past decade. Sandri (2013) states that "sustainable development is essentially a creative endeavor"⁸ and makes the argument that higher education needs to make more substantial strides toward providing creative, hands-on, learner-centered opportunities for students so that they can develop the valuable skills required to engage as creators, "such as imagination, problem solving, critical thinking, and decision-making."⁹ Developing such skills will "help learners to engage with challenges of sustainability in personal and professional contexts."¹⁰ Hensley goes a step further in their study and asserts that incorporating mindfulness into educating students about sustainable development can help stimulate creativity and develop creative skills that empower students to "tackle complex sustainability challenges."¹¹

In addition to these calls to add creativity-based pedagogies to sustainability curricula in higher education, several studies document the positive impacts of implementing such creativity-focused projects in the classroom, particularly in teaching students action-based skills essential to becoming effective creators. Sanz-Hernández and Covaleda present a case study in which they asked students to create small, mailable pieces of artwork that were sustainability-themed. These creative works, which they referred to as "sustainable mail art" were then mailed to participants in the study. The overall purpose of the project was to demonstrate how sustainability and creativity can come together to promote action and increase community engagement¹² Based on their analysis of the art creators' and receivers' comments, they concluded that "including creative learning experiences such as [mail art] into the higher education curriculum can help both students, new artists, and 'receivers' to reconceive the role of humans on the planet to tackle huge challenges associated with sustainability."13 Cheng also discusses a study that embedded a creativity-oriented, project-based, and sustainability-focused curriculum into an already existing course on toys.¹⁴ Through interviews with students who took the course, Cheng identified five main "pro-environmental sustainability" creativity attributes that the students developed, some of which involved active, creator-based skills such as "creative problem-solving abilities," "affinity for [a] self-creating lifestyle," and "sensitivity and problem finding."15

Overall, one of the most common threads in the literature connecting creativity and sustainability in education is the importance of creator-focused skill-building. There is a clear consensus among the experts that developing hands-on, creative, and actionable problem-solving skills in students ensures that they are taught to think and act creatively and steadily grow into effective creators, leaders, and "change agents."¹⁶ Trends in the literature make it clear that teaching proactive skills focused on empowering students to not only think creatively but to become creators is necessary to create future sustainability leaders with the capacity to tackle the world's leading environmental, ecological, and climate-based problems.

WHY DOES IT MATTER IF SUSTAINABLE DEVELOPMENT IS CONSIDERED A "CREATOR" FIELD IN HIGHER EDUCATION?

There are three main reasons why it is so important to consider sustainable development a creator field in higher education. The first is that higher education is a place where the mindsets of future generations and leaders are molded and shaped.¹⁷ If academia approaches sustainability as a creator field, it will ensure that students receive an education that provides them with the tools necessary to become truly effective leaders and innovators in sustainability fields, regardless of discipline. Studies analyzing both the most common characteristics associated with sustainability leaders in higher education¹⁸ and the main motivations that drive sustainability leaders in a variety of disciplines¹⁹ have found that creativity, innovative thinking, and positive educational experiences play major roles in how leaders make decisions and how they became leaders. For example, Fihlo et al. surveyed fifty higher education sustainability leaders from twenty-nine countries, asking questions about leadership style and skills. When asked how to describe their approach to sustainability leadership, 40 percent defined themselves as "visionaries" and 38 percent described themselves as "creative," and when they were asked what "primary skills ...a sustainability leader should possess," 60 percent of the respondents selected "challenge and innovate."20 Horn and Wehrmeyer interviewed sixteen sustainability leaders working in the Philippines across a range of disciplines about the motivations that drove them to work in the sustainability field, and several interviewees indicated that "environmental education and memorable teachers and mentors" influenced their career trajectories.²¹

The second reason that the field of sustainable development should be considered a creator field goes beyond just the world of education. To achieve true, global sustainability and to actually develop equitable human and nature rights-focused solutions to the major climate and environmental problems that we are currently facing, it is essential that all individuals and societies shift into a sustainable mindset that promotes self-agency, self-awareness, and creative thinking. In the groundbreaking book, *Flourishing: A Frank Conversation about Sustainability*, John R. Ehrenfeld and Andrew J. Hoffman discuss this need to transform how we currently think about sustainability, stating that "sustainability takes a movement to reexamine who we are, why we are here, and how we are connected to everything around us.²² Thinking of the sustainability field as a "creator" field, or even just sustainable actions or choices as "creator" choices, will empower us as both individuals and a society to find ways to live and act move sustainability, to strive to become sustainability leaders in ways big and small, and ultimately to work toward a creating a future in which "humans and other life will flourish on the Earth forever.²³

The third and final reason why it is important to consider sustainability a creator field is that this mindset will allow educators, librarians, and other higher education sustainability advocates to proactively structure how we encourage and empower students who are interested in sustainability work so that they can proficiently develop the skills necessary for success in future sustainability careers and professions. The events that we plan, the courses that we teach, and the lesson plans that we make can all be deconstructed and rebuilt to encourage creativity and foster the "creator mindset" that will hopefully lead to future ambitious, equitable, and sustainable developments economically, socially, and environmentally.

Using our own case study, we will now demonstrate how we have developed services, resources, and programming to both help provide support to the members of our campus community engaged in sustainability-related fields and disciplines, as well as cultivate a creator mindset in all students, faculty, and staff at Binghamton University.

ACADEMIC LIBRARIES SUPPORTING SUSTAINABILITY CREATORS: A CASE STUDY FROM BINGHAMTON UNIVERSITY LIBRARIES

Getting Started

Sustainability-related services at Binghamton University Libraries began taking form in the fall of 2019, growing out of conversations with students, faculty, and staff at the university. Early conversations tended to revolve around typical green ideas, such as improving recycling, purchasing reusable plates and bowls, and turning off lights. At the same time as we were having these early conversations, we started planning on turning a small area of the Science Library into a "sustainability corner" with a small book collection and a few sustainability-related resources. As conversations continued, so did the variety of ideas, including providing meeting spaces, creating a pollinator garden, and showcasing relevant research. These conversations and ideas eventually resulted in the idea of expanding the sustainability corner into a Sustainability Hub. We define a Sustainability Hub as "an organization or collective, operating under an academic or research institution, that fosters collaboration, bolsters engagement, and provides additional active support for all sustainability-related education, initiatives, programming, research, and activism taking place within its community of faculty, students, researchers, and/or staff members." The ideas ground the main goals of the Hub, which has both physical and virtual spaces: to foster collaboration, help cultivate sustainability research, and bolster engagement. We work towards meeting these goals by collaborating with a wide range of partners and supporting our campus students.

Showcasing and Encouraging Creation

Just as we didn't start out with the goal of creating a Sustainability Hub, we also didn't actively think about bringing creators into our sustainability work. However, looking back we realize we have worked with creators, showcasing and encouraging creative works, from the beginning. In fact, the very first plan for the space we were creating was to paint the concrete pillars in the area to look like trees. Another immediate way we brought in creators without even thinking about it was by collecting student artwork from an ecology faculty member to hang up around the newly created Sustainability Hub. We also immediately created and displayed a UN Sustainable Development Goals chart for our library using a template created by the American Library Association.²⁴

The Sustainability Hub exists in both physical and virtual spaces, and these spaces are available for people to share their creative works and engage in creative activities. Research posters are displayed throughout the physical space, and while the collection of student- and faculty-created artwork was paused due to COVID, it will resume. We also use this space to share information about local groups and ways to get involved and be creative, including guides on how to create a compost station and how to build butterfly and pollinator gardens. The Hub's virtual spaces include the library guide,²⁵ which provides a wide variety of information and highlights materials such as the student-created videos and a dedicated space in the Institutional Repository (Binghamton ORB) where people can archive and share their work.²⁶ The dedicated space in the ORB came about after discussions with students about the various zines, posters, projects, etc. that they have worked on. Students have been excited about being offered this space and we look forward to exploring more of their creative works.

We also invite creators to explore topics of sustainability through various communications and events that encourage people to think about the environmental impact of different aspects of their lives, particularly when it comes to creating waste and using non- or less-toxic materials. Although these are topics highly relevant to many creators, they can be easily overlooked. An early example was a virtual panel event discussing how to live a more sustainable lifestyle where faculty, students, and community members from multiple disciplines shared the various ways they brought sustainability into their lives. Other more recent examples include events where students can make paper pots and seed envelopes from old books and packaging materials, paint terracotta pots using plastic "trash" to hold their paint and rinse water, and a collaborative event with the Art Museum where students painted cut-off plastic water bottles to turn them into little seed pots.

The first few examples not only began our sustainability promotion, they also added an aesthetic appeal and brought in people who otherwise may not have been interested in sustainability. Recent and planned activities continue to attract and engage as each event or item reaches new individuals.

Extending Reach and Impact Through Partnerships

Early in our process, during the sustainability corner phase, we were awarded the Resilient Communities: Libraries Respond to Climate Change grant from the American Library Association.²⁷ One of the primary outcomes of applying for and receiving this grant is that we had to take an active look at our plans, especially in regard to working with partners. Pushed by this grant, we ended up partnering with the campus LGBTQ center (Q Center), Multicultural Center (MRC), food pantry, and various faculty and students. We also partnered with community organizations focused on gardening and sustainable energy. All of these organizations and individuals have different definitions of sustainability and different individual goals that enriched our work. By working with these groups, we created a variety of events that brought in people from numerous disciplines and backgrounds, including creators of all sorts. These experiences exemplified and confirmed the benefits of partnerships and collaborations, including the increased ability to widely explore intersections of sustainability, creativity, and other areas of social justice. In fact, we consider the initial push from the grant to collaborate to be the primary benefit of the grant, and it is now the foundational advice we give on library sustainability work.

The first event that resulted from these initial partnerships was a social media campaign for donations for the campus food pantry. Working with the MRC, we created nine separate social media posts with three or four slides per post for three different platforms. We used our own creator skills to produce eye-catching and informational posts on climate change and food insecurity. The posts were engaging enough that we were able to collect 206 food items for the pantry.

For another event, we partnered with the Q Center on a screening and film discussion of *Fire and Flood: Queer Resilience in the Era of Climate Change.*²⁸ Working with the Q Center, we were able to learn about a new student group, Out In STEM (OSTEM), that also joined us in this multi-stage event. During the first stage of the event, The Q Center director and a representative from OSTEM interviewed the film's creator and director, Vanessa Raditz. We also held a discussion with a participant in the film, Luz Cruz, who is one of the creators of Cuir Kitchen Brigade.²⁹ These discussions explored why and how the different creators used their creative skills to address various topics of sustainability, including climate change, food insecurity, and social inequities.

Another panel session involved faculty, students, and community scientists discussing the effect of climate change on ecosystems. Their various scientific disciplines and backgrounds led to a discussion on creative ways to combat invasive species, teach high schoolers, engage individuals, and imagine what ecosystems will look like due to climate change effects. Numerous inspirational creators were brought up during the discussion, including filmmakers as well as authors, including E. O. Wilson, Robin Wall Kimmerer, Daniel Quinn, Frank Herbert, Orson Scott Card, and Seanan McGuire.

With the creation of the Sustainability Hub, we decided to add a sustainability twist to a repeat of a previous event. For our second annual Citizen-Science Wikipedia-edit-a-thon, we focused on the topic of environmental justice. While having edit-a-thons online has proved to be less successful than in-person events, this environmental justice edit-a-thon excited members of the Zero Hour student group to the point that they asked for the dashboard to remain active for the entire semester so they could continue to work on the project, creating new knowledge.

Supporting Students and the Campus Community

"Make things easier." That is a quote from Molly, a student representative of multiple student groups when asked what was one of the main things the libraries could do for students to support sustainability. The conversation with Molly ultimately helped lead us to the Sustainability Hub concept. Sustainability can be very overwhelming since it intersects every aspect of our lives and there is so much varied information out there, so what she was saying made sense. Since that conversation, making things easier for the students has been one of our goals. We provide them with information that gets to the point and is understandable, provide them resources to explore and learn more if they want to, provide them with a low-stress environment to explore these topics, and help them with their own ideas in whatever way we can.

One example of resources we provide in the Sustainability Hub is lending non-traditional materials. These materials encourage exploration and can be used by anyone on their own time in whatever location makes sense to them. They include kill-a-watt meters, air quality testers, citizen-science kits, and seed-saving kits. Our current citizen-science kits include ones for observing pollinators (figure 14.1), birdwatching, counting fireflies, exploring biodiversity, and measuring light pollution. Most of these kits also include a notebook and pencil that individuals can use to not only take notes but also draw what they see and leave for others to see and add to. The seed-saving kits include items to cover blossoms (to prevent cross-pollination), materials to collect, dry, and store seeds, and even weatherproof markers so plants can be properly identified throughout the growing and harvesting seasons. We hope that these tools and kits may be of interest to those looking to explore sustainability, and science, in a creative way.

The Seed Library (figure 14.2) is a centerpiece of the Sustainability Hub and is a great example of something that combines sustainability and creation. The creation and organization of the library itself required a great deal of creativity in order to make it accessible, appealing, functional, and sustainable. A primary reason we created it was to provide a source of creativity for a wide variety of people. Individuals from all backgrounds and disciplines, faculty, students, staff, and community members-anyone can come use the library and everyone will have a different reason to. Some may want to create a food garden in their yard, a single herb plant on their windowsill, a wildflower patch for pollinators, a cultivated flower bed, a gift for a loved one, and on and on. Others may be interested in the variety of seeds available and want to collect and store the seeds for their own cultural or scientific purposes. The numerous seeds available, and the free access to them, may also lead to individuals trying new foods. To encourage this exploration, we plan on providing recipes and cooking supplies. Additionally, we've even had artists examine the seed packets themselves. A small internal grant was also received in order to work toward integrating the seed library more into research and education done on campus, including the purchase of equipment to provide a variety of storage conditions for the seeds as well as to create events on science, creativity, and cultural relevance of seed saving.

CITIZEN SCIENCE POLLINATOR

Rent this kit to learn more about pollinators!





This Pollinator Data Sheet and expo marker are used to take pollinator data over and over again!



Binoculars are used to observe pollinators. Adjust the binoculars to your face and use the dial to focus!



A stopwatch is included to time your stationary pollinator observations on the go!



This ebook will help to identify different bees! The project guide will explain how to collect and submit data!

ADDITIONAL RESOURCES:



PolliNation ID

Download this app to identify pollinators on the go! Enter your observations to narrow down specific species and submit data for scientific research!



The Great Sunflower Project

Visit <u>www.greatsunflower.org</u> to report pollinator data! Create an account and submit your observations under "Add a Count"!

iNaturalist

Download the app or visit www.inaturalist.org/ projects/empire-state-native-pollinator-survey to submit photos and observations to the DEC!



Download the app to identify different types of bees while learning about the importance of pollinators and how to design gardens that aid in conservation!



FIGURE 14.1

An example of the citizen-science kits available for loan.



FIGURE 14.2 The Sustainability Hub Seed Library.

A recent addition to the Hub are recycling collections boxes for hard-to-recycle materials. The disposable mask recycling box has been especially popular, as has the recycling for writing utensils. Having these options for people not only allows individuals to recycle the item in question, it also encourages them to be more thoughtful about their waste.

Most events have been held online, and while we continued having mostly online events even after returning to campus, two in-person events were extremely successful (and creative!), both of which had the goal of making things a bit easier for students. The first was a clothing swap held in collaboration with the Students for Ethical Living and Food group. The event was popular, with more than 130 attendees, and resulted in multiple conversations about upcycling clothing and other goods. Students could bring in two items of clothing, of any age or style, and leave with as much clothing as they wanted. Not only were the conversations helpful, but events like these help students get items they need and may not be able to afford. The other in-person event was a wellness-focused poster session which had a continuous stream of visitors, including the university president. The posters include important information for college students, and having them available in the library makes them accessible to more students while also providing a more robust group of attendees. Both of these events had the additional benefit of serving as a break for the students studying hard in the library. Multiple students took a break from their work to attend these events. Some that came just for the event then stayed to borrow books (figure 14.3).



FIGURE 14.3 Health & Wellness poster session being visited by the university president.

Direct Student Engagement

Over the course of establishing our hub, we have also made efforts to engage students in creative endeavors as much as possible to promote the narrative of "creators in sustainability." One of the first students we worked with in this way is a prime example of how sustainability-related tracks utilize creativity. Although having no video-making experience, she decided that a short video about her work would be beneficial for us to have in our Sustainability Hub. She learned the basics and created an informational video about her research and lab. She has continued to work with us to create an attractive and interesting web page on the myths of recycling. She is just one of the students we've worked with over the past year that exemplifies the strengths of sustainability-focused individuals being or working with creators. Another example is a student we are working with to create a resource guide for environmental justice and activism. When we received the grant to create this guide, we knew our ideal student employee would be one who was passionate and knowledgeable about the topic but also able to think creatively and engagingly. The student we hired didn't have much creator experience but has since expressed that the process of figuring out the best way to create the project has helped her think more deeply about the sustainability topic. She also has sought out and integrated feedback from others on the best way to express the information on the guide.

With the growth of the Sustainability Hub, we were able to hire a student to help manage the area. This student's disciplines are sustainability and philosophy, policy, and law, yet she has relied on her creator skills to create flyers, decorate the space, and organize the seed library for us. On the flip side, we have also brought in creators with no sustainability interest or background to help us in our Sustainability Hub. While the task of turning the concrete pillars mentioned above into trees has not yet been completed, we've brought in faculty, student, and staff artists to help us envision the project and figure out the best way to proceed. We are also lucky to have an artist who works in the library with us and whose skills we utilize whenever we are able to. This cross-pollination of disciplines helps cultivate a campus culture of sustainability.

The projects listed above are just a few examples of the ways sustainability and creator tracks intersect. Additional creator-related projects in the works include a sustainability-focused book collection, events focusing on creating seed packets and seed starting pots, and upcycling-focused events similar to the clothing swap event. As the Sustainability Hub continues to grow, we will continue to think about sustainability as a creator field in order to expand our reach, engage more individuals, and increase our impact.

REFLECTIONS AND TAKEAWAYS: HOW ACADEMIC LIBRARIES CAN UNIQUELY SUPPORT SUSTAINABILITY CREATORS

Reflecting on the sustainability-related resources, services, programming, and spaces that we created over the past two years, we are confident that academic libraries and librarians can play extremely influential roles in offering support for sustainability creator communities due to our unique strengths—strengths that are often already embedded in our operations and service models. Overall, we identified four strengths that academic libraries can showcase and that we took advantage of ourselves in order to support creator communities. We believe other libraries and librarians can also play upon these strengths to build and/or grow their own offerings to support sustainability creator communities.

Strength #1: A Bridge Between Disciplines

Academic libraries and librarians already support the entire campus community no matter the discipline, department, or status of community members (faculty, student, staff, etc.). This provides us with the ability to make connections across disciplines and status and provide services to students that encourage them to become sustainability creators even if they are not majoring in more traditional creator fields. These students might not be afforded as many opportunities to hone their creator skills, and the libraries can step in to help provide these services. One example of how we have done this is by curating an interdisciplinary sustainability book collection that particularly focuses on practice-based sustainability skill-building, such as foraging for food, mending clothes, growing resilient gardens, saving seeds after harvest, and more. Additional examples of activities that play on this strength are planning interdisciplinary panel sessions or talks, creating subject guides that provide resources about a variety of different areas/fields, and hosting student poster sessions in the libraries.

Strength #2: Community-oriented and Collaborative

Hand-in-hand with the strength of bridging disciplines, libraries are exceptionally community-oriented and collaborative. We strive to bring people together and transcend the disciplinary information silos that can often be found in academic institutions. In our own efforts, we have found that the library is the perfect place to engage with students, faculty, and staff members who may be working or studying in fields that do not typically interact with sustainability topics on a regular basis. Here, these individuals can find a diverse community of individuals and organizations with different backgrounds as well as interests in which they can learn from and connect and collaborate with. An example of how we have utilized this strength in our own hub is by building our community seed library and encouraging members of the community to both take and donate seeds from it to help eventually create a self-sustaining seed library. Additional services and activities that can be used to showcase this strength include providing access to resource spaces/meeting rooms for sustainability-oriented student clubs to convene, starting an interdisciplinary book club, and partnering or co-hosting events with various local and on-campus organizations.

Strength #3: Centrally Located Information Hubs

Libraries already serve as physical and virtual hubs of information and resources on their campuses. Physically, they are often located in the center of campus and have high-traffic volumes from students, faculty, and staff members. Virtually, our websites are often the go-to place for anyone conducting research. This gives us a wide audience to share sustainability-related information, resources, events, and other activities, and so we can use our platform to help support and empower sustainability creators across disciplines in ways that others cannot. We have done this at Binghamton by creating a sustainability event calendar and a sustainability LibGuide that includes a variety of information, including local resources events, student organizations on campus, and tips on recycling. We also created a "Sustainability Hub" section within our own online institutional repository so that we can encourage anyone in the campus community to upload their sustainability research or creative work to share with the world. Examples of other ways in which this strength can be applied in academic libraries include creating a sustainability-entered blog or social media account for the libraries, starting a listserv to share updates, or sharing regular reading and/or resource lists.

Strength #4: Pressure-free Engagement Spaces

Academic libraries can host relaxed activities that offer no-stakes, non-credit-bearing activities that students can engage in without having to worry about grades, supervisors, or professors. This also allows us to have more leeway in the types of activities that we

plan and the services that we offer, which can give students the opportunity to engage in more skill-based, hands-on activities and experiences. We have accomplished this by offering non-traditional lending items, such as citizen-science kits, so that students can interact with nature, learn new skills, and educate themselves on sustainable practices in a pressure-free way. Additional activity examples include nature walks, seed planting and seed saving workshops, and hosting Wikipedia edit-a-thons.

CONCLUSIONS

Sustainability and sustainable development is a field of study that inherently facilitates creators and creativity. Academic libraries are particularly suited to help foster this creativity and support students studying, researching, or working in sustainability-related areas because we are interdisciplinary, community-oriented, accessible, centrally located, collaborative, and because we can offer no-stakes, no-pressure engagement opportunities to our campus communities. Through our case study, we have provided several examples of resources, services, events, and programming that Binghamton University Libraries' Sustainability Hub has created for its campus that encourage creativity and support sustainability student creators. We hope that this inspires other academic librarians that are interested in growing or starting their own sustainability-related services to (1) think of sustainability and sustainable development fields of study as creator fields, and (2) provide support to these learning communities on their campus in engaging, creative methods that encourage the development of hands-on, active, problem-solving skills.

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