The Big Tent, Three Ring Circus of Sustainability at the University of Louisville

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Sustainability requires us to incorporate environmental, social and economic stewardship into our decision-making. In business, this is often referred to as the “triple bottom line” approach. Original source: Missouri State University (http://www.missouristate.edu/Sustainability/61007.htm)

My job is weird. I’m in charge of something many people don’t understand or often consider, and yet it’s captured by a term familiar to nearly everyone: sustainability. It’s a notion that’s becoming increasingly widespread, influential, and popularized, even though those of us who live and breathe sustainability struggle to capture its essence succinctly.

To explain my passion and profession I use a model I like to call the “three ring circus” of sustainability. It elegantly expresses the fact that the sustainability tent is a big one, that there are no easy answers, and that my job often feels like herding big cats while juggling fireballs and making the crowd smile. You see, sustainability isn’t simply about “going green” and becoming better environmental stewards. Nor is it merely a question of efficiency and better management of economic resources. Nor is it solely a matter of social justice and building healthy, resilient communities. The truth is that it’s about all of these things at once and that true sustainability requires us to seek a balance between environmental, economic and social stewardship. That’s not easy, but it’s extremely gratifying work.

After four-and-a-half years on the job as UofL’s first-ever sustainability coordinator, I have to say that I’m really proud of what’s happening here. We truly are moving towards ever greater sustainability as we take new, diverse, and bolder steps toward a more environmentally, socially, and economically responsible institution.

The challenge of sustainability is that it requires society, institutions and, indeed, each and every one of us, to develop the knowledge and skills necessary to make decisions based on these three value centers which we are used to considering in isolation, if at all. It requires flexible, interdisciplinary thinking in a world that tends to reward and encourage narrow, highly-specialized problem-solving. It is as much art as science.

Sustainability is slippery. It is not a static concept. It changes over time and across contexts. Ultimately, sustainability is best thought of not as an achievable end-point, but as a harmonic convergence with which we must strive to stay in tune.

As murky as the concept may be, it is helpful to realize that sustainability is based on some core principles that remain constant across time and context. Having studied the nature of sustainability in academia and in life, I’ve learned that it is fundamentally about seeking solutions which simultaneously:

- Reduce/Eliminate waste and pollution;
- Reduce/ Eliminate abuse and injustice (to people, animals, planet);
- Rely on renewable resources and value durability over disposability;
- Cultivate diversity (human, ecological, systemic); and
- Build resilient, cooperative communities.

Figuring out what all of that means can be daunting, whether you’re standing in the grocery aisle, deciding on a career and where to live, or crafting a university’s strategic plan. But there is nothing more important for us to consider. Indeed, sustainability matters deeply to all who hold a stake in our common future.

At the University of Louisville (UofL), sustainability matters to our students because they will inherit the world we are busy creating today by both design and unintentional consequences. If we ignore sustainability concerns, we could very well bequeath to future generations a chaotic, polluted world and overwhelming economic, social and environmental debts. If, on the other hand, we use the guiding principles of sustainability to make wise, intentional choices today, we better ensure that future generations inherit a world of sufficient resources and opportunity for all.

Sustainability matters to our employees because their health, wellness, and financial security are all affected by the way we manage our resources. At UofL, our commitment to sustainability also extends to the types of problems our researchers study and the subjects our faculty teach.

Finally, sustainability matters to the communities in which our students and employees live and work. A positive future can only be built on the three equal pillars of social, economic and environmental stewardship. By staking our institutional future on a careful balancing of these three values, UofL is helping build that positive future and serving as a model for others in our region. Our sustainability efforts show that we are investing in tomorrow and that we care deeply about the future of our students, employees, and community.

Our Mission

The University of Louisville is committed to integrating sustainability into everything we do - from how we manage our facilities, finances and people to what we teach in the classroom and what we research in the lab. Our vision is to create a university that is itself a living laboratory for sustainability and a campus community that leads by example and educates as much by what we do as by what we say. Our goal is to make decisions which reflect a balanced consideration for environmental, social and economic responsibility and to continually learn as we go. Creating a more sustainable UofL is a dynamic, multi-faceted, long-term process. We’ve come a long way and we have a long way to go...but, yes, it’s happening here.

Getting there from here

How does a large institution like UofL, with over 22,500 students, 6,600 employees, and 8 million square feet of building space, balance environmental, social and economic stewardship to become more sustainable? The question is complex and the answers are not clear. But we are taking the challenge seriously and moving forward without perfect knowledge in the spirit of learning by doing.

In 2008, President James Ramsey signed the American College & University Presidents’ Climate Commitment, incorporated sustainability into our strategic plan, and convened the university-wide Sustainability Council and its associated committees: Operations; Administration, Finance & Outreach; and Education & Research. This committee structure and our framework for measuring strategic progress in sustainability has always been based upon the Sustainability Tracking Assessment and Rating System (STARS) developed by the Association for the Advancement of Sustainability in Higher Education (AASHE). UofL was a charter participant in STARS and the tenth school in the nation to submit data to the framework, earning our first Silver rating (50.11 points) in January 2011. Two years later, we earned a new STARS Silver rating (58.29 points), increasing our overall score 8.18% and giving UofL the highest STARS rating in Kentucky. The rating indicates that UofL is on the right path in its sustainability journey and it also provides valuable guidance for our future work.


Though we still have a long way to go in our journey, UofL has made some remarkable progress in recent years. What follows is a summary of some of the highlights:

**Awards & Rankings:**

- UofL developed a comprehensive Climate Action Plan in 2010 and we have already exceeded our initial short-term goal, with a documented 27% reduction in greenhouse gas emissions over the 2006-13 period.
- In addition to increasing our STARS Silver rating from AASHE, we improved our overall score by
nearly 11.5% in the Sierra Club’s 2013 Cool Schools ranking10 (from 510.89 in 2012 to 625.74 in 2013, out of a possible 1000). UofL continues to hold the top position in the state, ranking 53rd out of 162 schools nationally.

- UofL received the Kentucky Department for Environmental Protection’s 2013 Resource Caretaker Award11 at the 37th Governor’s Conference on Energy & the Environment in Lexington, KY. (Sept. 2013)

Education / Awareness / Behavior Change:

- In 2012, the Sustainability Council launched a new Eco-Reps Program8 for peer-to-peer sustainability education and advocacy across the university, along with new professional development programs in sustainability that complement our weekly module on sustainability during New Employee Orientation, and our efforts to weave sustainability into the student orientation experience.

Residents in four UofL housing halls can get real-time feedback about their conservation efforts through online Building Dashboards. http://buildingdashboard.net/ulouisville/#/ulouisville/

- In 2012, we installed real-time energy monitoring and display technology in four residence halls. These online Building Dashboards12 allow residents to get a handle on their energy usage and to get real-time feedback about conservation efforts. The Dashboards also helped UofL to finish in the top ten energy reducers in the 2012 Campus Conservation Nationals, reducing energy consumption 11.9% across all our residence halls, and over 36% in the winning hall.

- UofL participates annually in the RecycleMania Tournament. In 2013, we finished first in the state in Waste Minimization and 20th out of 168 nationally; we also finished 2nd in the state in the Grand Champion category and 37th out of 274 nationally, with an overall recycling rate of 48.87% during the friendly, 8-week competition from February to March.

- UofL hosts a wide variety of Sustainability Events11 throughout the year, including films, sustainability weeks, bike rides, lectures, conferences, panel discussions, workshops, fairs, competitions, tours, open houses, local food meals, farmers’ markets, etc.

- We’ve added a SUST coding system to identify the hundreds of courses in our catalog that incorporate sustainability concepts across many disciplines. This system has also helped us as we develop interdisciplinary academic degree programs in sustainability – including a certificate, minor, bachelor’s, and master’s program, all in the works.

- Four different cohorts of faculty from many disciplines have formed to participate in the Sustainability Council’s annual Green Threads faculty development program13 designed to help faculty infuse sustainability across the curriculum.

Energy & Buildings:

- UofL has invested heavily in retrofitting our existing facilities for energy and water efficiency. This $46.2 million project, involving 88 buildings (6.2 million square feet) on all three UofL campuses will save the university $4.4 million every year and reduce our annual carbon dioxide emissions by over 46,000 tons (the equivalent of removing 7,690 cars from the road). In 2012, we documented that this performance contract had exceeded projected savings12, with Belknap Campus reducing fuel use 48%, electricity use 27%, and water use 31%.

- All new construction and major renovations at UofL are designed for Leadership in Energy and Environmental Design (LEED) certification14 to encourage efficiency and reduce the total environmental impact of buildings.

Examples of efficient lighting and insulation jackets installed at UofL are on display during Campus Sustainability Day. Photo Credit: Tom Fougerousse.
during construction and occupancy. We have LEED Gold buildings on all three campuses, several LEED Silver projects, and more to come.

- **Model Green Rooms**\(^{15}\): UofL has redesigned various rooms around campus based on student proposals to serve as models for sustainable design principles. In addition to a dorm room and conference room, in 2013 we completed a model green office renovation.

- UofL was the lead partner in a student and faculty team to build a fully solar-powered modular home for the Department of Energy’s 2013 Solar Decathlon, taking first place in Affordability.

**Food:**

- UofL pursues a variety of means to increase access to local food on our campuses. Our dining services\(^{16}\) contract with Sodexo requires a minimum of 15% local purchases, but we continue to exceed that and to find more opportunities for direct farm impact. In 2012-13, 24.7% of our food was sourced locally, and we increased that to 26.75% from July-September 2013.

- Our School of Public Health manages the Gray Street Farmers’ Market\(^{17}\) in a food desert on our Health Sciences Center. In 2013, the market began a new series of weekly 20-minute mini-workshops to educate consumers about sustainable food, eating, and farming.

- Our main Belknap campus has hosted a weekly *mobile farmers’ market and a Community Supported Agriculture program* with weekly deliveries of fresh local food to campus.

- UofL has had *organic food gardens*\(^{18}\) on all three of our campuses, demonstrating for students, employees, and visitors a variety of sustainable urban agriculture techniques including composting, rainwater capture, and permaculture practices. Our newest campus garden, the Urban & Public Affairs Horticulture Zone, was installed summer 2013.

**Grounds:**

- Our 309-acre, park-like Belknap campus has over 2500 trees representing dozens of species, many of which are native to our bioregion. We formed a Campus Tree Advisory Committee in 2010 which works to develop sensible plans and policies for the promotion, protection and expansion of our urban forest at UofL. As a result, we have increased our tree population by over 500 trees and we have received *Tree Campus USA* status from the Arbor Day Foundation every year since 2010. We have also involved students and faculty in extensive campus tree inventories and developed a *mobile tree app*\(^9\) and a self-guided campus tree tour\(^{20}\).

- The massive, unprecedented flood which hit UofL on August 4, 2009, causing $20.9 million in damage, was a wake-up call that helped motivate us to take action to both mitigate our climate impact, and to adapt to a changing climate by getting serious about *sustainable storm water management*\(^{21}\). Further flooding on May 29, 2012 not only validated our concerns, but demonstrated that our work since 2009 to enhance storm water infiltration has begun to pay off. UofL has made several changes to landscaping, parking lots and rooftops, with the help of $1.5 million in cost-sharing from the Metropolitan Sewer District. Our green infrastructure projects have included infiltration basins, pervious pavements, bioswales, rain gardens, and vegetated roofs to reduce flooding and keep storm water out of the sewers. We’re also demonstrating the principle of rainwater capture and reuse with rain barrels at the Garden Commons and Urban & Public Affairs Horticulture Zone.
Recycling:
- In 2013, the Sustainability Council formed new Solid Waste Reduction Committee which is finalizing a Zero Waste Plan for UofL. Our goal is to continually reduce the amount of waste we generate and send to the landfill, by all means possible.
- In fall 2013, student volunteers opened a permanent Free Store\textsuperscript{24} for on-going exchange of reusable items like clothing, electronics, school supplies, furniture, non-perishable food, etc.

Research:
- UofL launched a new Sustainability Scholars Roundtable\textsuperscript{23} program in 2012 to facilitate networking, grant-seeking, and collaborative, interdisciplinary work amongst faculty, staff, and graduate students engaged in research related to sustainability.

Social Justice:
- Student activism in 2010 spurred UofL to re-affiliate with the Workers' Rights Consortium\textsuperscript{26} and to become a supporter of its Designated Suppliers Program. The WRC is an independent labor rights monitoring organization, conducting investigations of working conditions in factories around the globe, including those where licensed UofL apparel is manufactured. The purpose is to combat sweatshops and protect the rights of workers who are often exploited in the industry.
- We established both a Green Fund, which will allow alumni and others to contribute to key sustainability initiatives, and a Socially Responsible Investment Committee, which has explored options for UofL's endowment.
- In 2013, UofL adopted a living wage program to increase the minimum salary for regular staff employees to $10 per hour.
- Business First has recognized UofL as the healthiest employer in Louisville. The Sustainability Council works closely with Get Healthy Now and Campus Health Promotion to maximize wellness on campus in ways that help people reduce their environmental impact.
- Our Office of Community Engagement\textsuperscript{27} has received national recognition for UofL's commitment to community service and outreach, with multiple opportunities throughout the year for students, faculty and staff to contribute to sustainability beyond campus borders.
- The Office of Diversity\textsuperscript{28} works at many levels to ensure that UofL remains a diverse, accessible, and affordable place where all are welcome and respected.

Transportation:
- In fall 2012, the Sustainability Council's Transportation Alternatives Committee launched a comprehensive
package of options\textsuperscript{29} to encourage the UofL community to think differently about how they get to and around campus. Use of the entire local transit system had been free with UofL ID since 1999 and student housing around campus has increased our residential population up to a third of students, decreasing the need for commuting. But now students and employees have access to: Enterprise carshare\textsuperscript{30}, carpooling and online rideshare matching through Zimride\textsuperscript{31}, on-campus bikeshare, the Earn-A-Bike program, and significant improvements in bike infrastructure as we implement our Bicycle Master Plan\textsuperscript{32} to include more bike parking (especially covered parking), five do-it-yourself bike fixit stations around campus, and more bike lanes on, around, and connecting our campuses. In 2014 we are working closely with regional planning authorities to implement a new UofL vanpool program, as well.

- Now in its second year, the Earn-A-Bike\textsuperscript{33} Program has attracted 1550 UofL students, faculty, and staff willing to give up their right to a parking permit for at least two years. 800 of these have received $400 bike shop vouchers after turning in any current permits and receiving training in bike safety and transportation cycling.

- UofL also recently expanded our Bikeshare Program\textsuperscript{34} with free daily bike check-out now available to everyone at UofL from five different campus locations.

- The Sustainability Council recently equipped six Physical Plant foremen and two parking officers with work bikes for getting around campus instead of golf carts or other motorized vehicles. The Council also equipped the Office of Health Promotion with an industrial tricycle for health advocates to use in hauling items across campus and raising awareness at campus events.

- UofL installed No-Idling Signs at dozens of priority locations around Belknap and HSC to raise the profile of our campus-wide No-Idling Policy\textsuperscript{35}.

- In 2013, the Sustainability Council conducted a follow-up transportation survey of faculty, staff, and students to monitor changes in commuting habits and willingness to consider alternatives since our 2010 survey. The data shows that our efforts have paid off with a 10% reduction in employees driving alone (1.4% drop for students), a 1% increase in bus ridership, 3% rise in carpooling, and roughly 2% increase in bike commuting.

This list of highlights is far from exhaustive—and the work is not finished. UofL has made many strides toward greater sustainability, but we still have many mountains to climb.

Each year, UofL participates in PARK(ing) Day, feeding a parking meter for the purpose of creating a temporary public park. In 2013, our park featured bike blender smoothies and the new utility bike used by the Office of Health Promotion. Photo Credit: Justin Mog.

- After two years of advocacy and community meetings organized by the Sustainability Council, in 2013 the Louisville Metro government installed new bike lanes on Brook and First streets through Old Louisville, providing Belknap Campus with its first north-bound bike facility and improved connectivity with our Health Sciences Center.

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References

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