



IRIS: Campus Hub for Sustainability Research

Institute for Research and Innovation in Sustainability
York University – 2009



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EXECUTIVE SUMMARY

York University has long been committed to environmental sustainability; the first Faculty of Environmental Studies in Canada was created at York. Building on its past achievements, the University has a tremendous opportunity to demonstrate leadership and innovation in the realm of sustainability. York University is rich with academic disciplines committed to the goal of sustainability: from the Faculty of Environmental Studies, to Osgoode Hall, to the Schulich School of Business, and the Faculty of Science and Engineering, among many other academic units.

This report is, in essence, a progress report on the Campus Sustainability Blueprint Project – which aims to create a plan for sustainability at York University. The report moves the conversation about how to translate the “blueprint” into real world action forward, with examples from IRIS’ work. There is an evolving campus sustainability movement in North America, in which York University could and should position itself as a leader.

The report also describes the unique role that IRIS plays in providing an interdisciplinary space to house an on-going dialogue on sustainability, while presenting a framework that can be used to guide York University as it moves forward with its commitments to campus sustainability.

In conclusion, this “blueprint” is in fact a living document. It is intended to offer a point of departure for debate and dialogue on how York University can work toward achieving campus sustainability. As an ongoing challenge, future versions of this document are envisioned as the sustainability conversations on campus move the process forward. The report can be found online at <http://www.iris.yorku.ca/campus-sustainability-blueprint/>

INTRODUCTION

“Sustainability provides colleges and universities with an opportunity to confront their core values, their practices, their entrenched pedagogies, the way they program student learning, the way they think about resources and allocate these resources, and their relationships with the broader community” (Wals & Jickling, 2002).

This piece of the campus sustainability blueprint project provides a snapshot¹ of the evolving campus sustainability movement in North America, highlights key initiatives on the York campus, and offers insights into possible next steps. As opposed to an actual “blueprint”, this report is intended to offer a point of departure for debate and dialogue. As such, readers will find questions and suggestions embedded throughout the paper. The report also details the campus sustainability initiatives that the Institute for Research and Innovation in Sustainability (IRIS) has undertaken, often in partnership with CSBO or Campus Services and Business Operations.

York University has a tremendous opportunity to demonstrate leadership in elevating the discourse(s) around campus sustainability by integrating the University’s sustainability commitment with the broader goals of the University. By taking a community building approach and facilitating a community engagement process consisting of broad-based participation of a diverse range of stakeholders in developing a vision for sustainability at York University, this report suggests that the process has the potential to enhance student engagement, governance, pedagogy, and the built environment of the campus. The report also suggests that IRIS is able to play a unique role in providing an interdisciplinary space to house an on-going action research initiative or “self-study” to encourage organizational reflexivity.

SCOPING THE LANDSCAPE

Gone are the days when sustainability could be passed off as the “flavour of the month,” or as a trend in universities and colleges. With the UN Decade for Education for Sustainable Development (2005-2015) well underway, the emergence of new journals such as the International Journal for Sustainability in Higher Education, issues of existing journals being devoted to the topic (see “Sustainability: Taking the Long View,” Planning for Higher Education, the Journal of the Society for College and University Planning), and books on the subject (cf. M’Gonigle & Starke, 2006; Bartlett et al., 2006; among many others), sustainability has become a pressing expectation of Canada’s post-secondary education institutions.

¹ As the initial research for this project commenced in Fall 2007, with a Research Assistantship to Nadine Gudz, more current research is certainly available.

The demand for universities and colleges to serve as models of sustainability is not new. Calder and Clugston (2003) list 25 significant events and declarations particular to higher education and sustainable development (ranging from regional to global in scope) beginning with the 1972 Stockholm declaration on the environment². Best practices abound as institutions across the globe mobilize to implement recycling programs and “lights out” campaigns, build green, hire sustainability directors, host conferences and partner with other institutions and actors to create learning networks and rating systems. As the movement grows, more organizations, networks and associations are emerging (University Leaders for a Sustainable Future, Higher Education Associations for Sustainability Consortium, Disciplinary Associations Network for Sustainability, and many more...) to share ideas and learn from different experiences. A few of these key groups are highlighted here.

The Society of College and University Planning (SCUP), with membership spanning across North America (including York University), has been actively promoting sustainability on university and college campuses and hosted its seventh Campus Sustainability Day in October 2008³ (www.scup.org). York University is also a member of the Association for the Advancement of Sustainability in Higher Education (AASHE), which publishes a weekly update of new sustainability initiatives (www.aashe.org), which are then collected in an annual digest based on categories of innovation such as:

- Institutional leadership and planning (pledges and declarations; guiding documents and reports; sustainability staff and structure; awards, recognition and celebration)
- Facilities (green buildings; fuel and energy; sustainable dining; water and waste)
- Residential life, student life (competition and awards; campaigns; learning communities (co-curricular); student unions’ sustainability coordinators)
- Curriculum
- Community partnerships

In addition to offering an extensive range of resources on-line dedicated to campus sustainability, AASHE hosts a biannual conference, staggered with the Greening of the Campus Conference at Ball State University. The American College and University Presidents Climate Commitment (ACUPCC) was launched at the 2006 AASHE conference, and has since attracted more than 540 signatories to date, including 8 institutions in BC that have created and signed a slightly modified version more reflective of the region.

In 2004-2005, York University students formed a sustainable campus coalition, which is a member of the Sierra Youth Coalition’s National Sustainable Campuses program (www.syc-cjs.org). The SYC sustainable campuses web-site is home to dozens of “best practices” across the country. SYC hosts an annual national conference as well as regional conferences across Canada intended to build capacity among students to effect positive change on their campuses based on tools and resources

² See also Wright, T.S.A., 2002. “Definitions and frameworks for environmental sustainability in higher education,” Higher Education Policy, 15: 105-120.

³ York University hosted satellite events with video conferencing in October 2005 and 2006.

for facilitating multi-stakeholder engagement. The program also offers a Campus Sustainability Assessment Framework (CSAF), developed by a Master's student at the University of Victoria, and assists campus coalitions with implementing the framework. In 2008, the National Sustainable Campuses program celebrated its 10th anniversary by conducting a qualitative evaluation of the program to reflect on its successes and challenges in order to plan for the next 10 years and beyond. SYC is also an active partner in the Campus Climate Challenge, a project of the Energy Action Coalition (EAC). In recognition of the UN Decade of Education for Sustainable Development, a group of thirty environmental and social justice organizations formed the EAC in May 2005 to promote the role of youth in supporting and initiating change in the energy sector.

Key themes at both the 2007 Greening of the Campus Conference and National Sustainable Campuses Conference included governance innovations among student unions (eg. Student unions hiring their own sustainability coordinators); developing sustainability literacy among staff; partnering with local businesses to promote local economies; debate about the merits of rating systems like the Sustainability Tracking, Assessment & Rating System (STARS), a voluntary, self-reporting framework for gauging relative progress toward sustainability for colleges and universities.

STRENGTHENING THE CASE FOR BROADER COMMUNITY ENGAGEMENT

"...the movement fails if it doesn't extend beyond the campus." -David Orr⁴

Based on the theme of the most recent AASHE conference, "working together for sustainability on campus and beyond" and the program of the 2007 Greening of the Campus Conference (<http://www.bsu.edu/greening/>), more and more universities and colleges appear to be making the link between their civic engagement and sustainability responsibilities – and *acting* on it. For example, at the last Greening of the Campus conference, though it was really encouraging to see a number of staff participants who held both service-learning⁵ and sustainability coordinator roles, one can imagine the breadth and complexity of their job descriptions, raising questions about the kinds of resources and structures needed to effectively support these important "blended" positions.

⁴ Keynote speech, Sept. 6, 2007, 7th Greening of the Campus Conference, Ball State University, Muncie, Indiana

⁵ There is an extensive body of literature on service learning methodologies, which focus on curricular community-university collaborations wherein faculty members and community groups partner to design a course around a current project/issue in the community in which students actively participate for academic credit. A key component of the course encourages students to reflect on their civic engagement responsibilities. Visit the Canadian Alliance for Community Service Learning (<http://www.communityservicelearning.ca/en/>) for more resources.

YORK INITIATIVES

York University is not new to the campus sustainability scene. For example FES at York was the first environmental studies program in Canada. Box 1 (right) places key developments at York in the context of significant milestones regarding sustainability and post-secondary education (PSE) institutions, and Appendix 1 provides a brief overview of a variety of sustainability-related initiatives at York.

These lists raise questions about how best to value institutional memory and celebrate the work of the many sustainability champions among York's students, staff and faculty. These efforts include the inter-institutional partnerships involving YCAS aimed at leveraging systemic change beyond the campus, to the President's Task Force, which gathered in 1999-2001 and offered a series of recommendations (See Appendix 2) leading to the adoption of the Talloires Declaration and production of an annual Environmental Sustainability Report by the Department of Planning, Budget and Accountability.

In addition, there are a number of Major Research Paper reports produced by the Masters of Environmental Studies students that have measured sustainability activity on campus. This includes the "Campus Sustainability Assessment Framework Report" prepared by the Sustainable Campus Coalition student group at York in 2006-07 for Keele Campus. This report utilized the Campus Sustainability Assessment Framework (CSAF). However it must be noted that so far, York University does not produce one complete sustainability report, the way universities like the University of British Columbia (UBC) or Concordia University do.

Timeline of selected sustainability milestones, including significant developments at York University

- 1968 York University Faculty of Environmental Studies founded
- 1972 Stockholm Conference on the Environment
- 1987 First environmental audit of a university campus (April Smith at UCLA)
- 1987 UN World Commission on the Environment & Development: The Brundtland Commission
- 1990 Talloires Declaration
- 1992 UN Rio Earth Summit: Agenda 21 Framework for Action For Sustainable Development
- 1994 European University Charter for Sustainable Development (Copernicus Charter)
- 1995 York Centre for Applied Sustainability founded
- 1997 The Kyoto Protocol
- 1998 UN World Declaration on Higher Education (UNESCO)
- 1998 Sierra Youth Coalition initiates national Sustainable Campuses program
- 2001 York University President's Task Force on Sustainability Report
- 2002 World Summit on Sustainable Development
- 2002 President Lorna Marsden signs the Talloires Declaration
- 2004 IRIS launched
- 2005 Decade of Education for Sustainable Development begins
- 2005 AASHE forms
- 2006 launch of AUCPCC
- 2008 Offsetting of course kits
- 2008 launch of the President's Sustainability Council by President Mamdouh Shoukri

** Imagine a campus community that gathered to talk about the report results each year, deliberate what questions are missing, and recommend strategies for improvement. Imagine an interactive space online where feedback could be collected and shared on an ongoing basis. Imagine a “real time” tool that monitored consumption patterns on the campus similar to what’s available at www.sustain.ubc.ca.*

For at least a decade, a number of faculty and students have been studying campus sustainability issues in courses such as “ENVS 1200 – Engaging People and the Environment” and “Ecological Restoration”, independent studies, MES major projects and graduate courses in planning such as the Bioregional Workshop. Some might describe these examples as treating the campus as a “learning laboratory”.

** Imagine an archive (online/print) containing all of the studies of the campus conducted by York students and faculty. Future generations of students and faculty could build on existing research and contribute to the campus’ collective knowledge. Imagine a small incentive funding program to support students’ proposals to study sustainability issues on the campus. Imagine going beyond the “learning lab” concept where students make recommendations based on the outcomes of their studies of the campus, which are submitted for review and possible action by relevant decision-making bodies at the University.*

The signing of the Talloires Declaration by President Lorna Marsden on March 1, 2002 was an important act, but without extending the conversation, engaging broad-based participation, developing an action plan and monitoring progress, the act loses meaning. The creation of multi-stakeholder groups such as the VP Students Sustainability Council, followed by the new President’s Sustainability Council serve as powerful opportunities for leveraging the institution’s leadership and effecting positive change. However, most of the campus-wide initiatives to date have tended to spring out of the Institute for Research and Innovation in Sustainability (IRIS), which emerged from YCAS, from CSBO, led now by the role of Senior Manager of Environmental Design and Sustainability, YORKW!SE and VP Finance. These initiatives are specifically aimed at reducing the ecological footprint of the campus and at engaging a broad range of community stakeholders in action.

**Are there alumni and other members of the broader community involved in York’s sustainability initiatives?*

It is interesting to note that student experience and engagement was a key focus of the 2007 Academic Planning Forum, but sustainability did not appear to enter into the dialogue. Featured initiatives included experiential learning programs in Atkinson and the Black Creek West Satellite campus.

**How can sustainability enhance student engagement and experience on the campus?*

Since sustainability is not the only issue in higher education “reform” or “reorientation” conversations, this paper suggests that York University demonstrate leadership in integrating sustainability into the broader goals of the institution and its purpose in the community, while finding synergy with other “movements” such as “education for democracy” and the “engaged campus”. This would require the institution to think deeply about what it means to develop a culture of sustainability at York University, going beyond incremental activities and sustainability indicators to take an integrated approach to improving the quality of life on campus and in the surrounding communities. New lines of communication might emerge along with new collaborations to engage departments such as the Centre for the Support of Teaching (www.yorku.ca/cst) and “Student Community and Leadership Development” (www.yorku.ca/scld) mandated to “...enrich student life by promoting education, awareness and growth; celebrating diversity, encouraging collaboration and developing citizenship.” The President’s Sustainability Council has a large, and welcome focus on student participation in the campus sustainability conversation.

A focus on the processes and purposes of sustainability in post-secondary education raises issues of fundamental change in core operations and functions of the campus. Boyer’s statement on the need for democratic PSE institutions carries relevance here, “What is needed is not just more programs, but a larger purpose, a larger sense of mission, a larger clarity of direction.”⁶

“The integration of sustainability will never lead to anything fundamentally new if the University is not prepared to incorporate it both into its academic mission and its management philosophy” (Wals & Jickling, 2002).

⁶ Boyer, E. L. (1994, March 9). Creating the new American college. *The Chronicle of Higher Education*, A48, in Saltmarsh, J., Hartley, M. and P.H.Clayton (2009) *Democratic Engagement White Paper*. Boston, MA: New England Resource Center for Higher Education, available at: http://futureofengagement.files.wordpress.com/2009/02/democratic-engagement-white-paper-2_13_09.pdf

IRIS INITIATIVES

The Institute for Research and Innovation in Sustainability (IRIS) plays a significant role as a facilitator of various sustainability initiatives at York University. Through extensive administrative, faculty and external networks, IRIS provides opportunities for partnerships as well as the creation of student-led campus research projects. Over the past few years, IRIS has provided financial support for events, students, and research projects on a wide range of sustainability-related issues. The following is a list of some of the projects in which IRIS undertook a leading role, acted as facilitator, or played an active supporting role. *This report only discusses IRIS activities undertaken directly at York University and therefore excludes all projects conducted through external grants and outside the University campus.*

STAKEHOLDER ENGAGEMENT

IRIS WEBSITE – WWW.IRIS.YORKU.CA

Over the past two years, IRIS has overhauled its website in order to make it more visually engaging and to incorporate more interactive formats, as well as to make it compliant with York branding and marketing policies. The website now features a blog as well as a sustainable shopping series. The website interface in use allows for more media formats such as videos and photos to reduce the volume of text. The website also features a news and events section.

IRIS ON FACEBOOK – IRIS @ YORK U

IRIS has also created a Facebook group to branch out to students using this social marketing tool. With over one hundred and forty members it is a perfect venue to reach a wider audience and allow for more exchange of ideas.

2007/2008 SPEAKER SERIES

- September 20 – **Educating by Design**, David W. Orr, Chair of Environmental Studies at Oberlin College and author of *Design on the Edge*, *The Last Refuge*, *The Nature of Design*, *Earth in Mind*, and *Ecological Literacy*. Presented in association with the Faculty of Environmental Studies and the Faculty of Education.
- October 17 – **The Culture of Flushing: A Social and Legal History of Sewage**, Jamie Benidickson, a law professor at the University of Ottawa.
- November 22 – **Disposable Futures, Dirty Democracy, and the Politics of Higher Education**, Henry Giroux, co-sponsored by the University Consortium on the Global South, Faculty of Education and Atkinson.
- March 19 – **The Social and Environmental Implications of Extractive Industries in the Global South**, The Panel consisted of Chair: David Szablowski (Law and Society, York), Panelists: Kernaghan Webb (Associate Professor, Business Law, Ryerson), and Uwaflokun Idemudia (Assistant Professor, African Studies, York). Presented in association with the Colloquium on the Global South.

2008/2009 THE SUSTAINABLE BUILT ENVIRONMENT SPEAKER SERIES

- October 29 – **Bringing the Green into Buildings**, *Andrew Bowerbank*, Executive Director of the World Green Building Council, and *Gabriel Draven*, President and Co-founder of Village Technologies.
- March 23 – **Tour of the Earth Rangers Building**, LEED Gold Certified building located at the Kortright Centre on the Living City Campus.
- April 2 – **Energy Conservation on Campus**, *Peter Love*, Chief Energy Officer at the Ontario Power Authority.
- April 27 – **Sustainable Transportation for the GTA**, *Chris Wong*, Director of Master Planning and Transportation Planning for the York University Development Corporation, *Jody Graydon*, Marketing Manager for Smart Commute, *Joshua Engel-Yen*, Senior Advisor of Policy and Planning for Metrolinx, and *Nicole Arsenault*, Manager of York University Transportation Services.

CONFERENCES/SYMPOSIUMS

- **Annual Association of Graduate Students in Biological Sciences (AGSBS) Symposium.** IRIS financially supported the AGSBS Symposiums over the last three years. Dawn Bazely and Tony Morris also provided advice and coaching on public speaking, introductions, and event planning for student organizers:
 - 2007 – Global Climate Change (34th Annual Symposium)
 - 2008 – Implicational Factors in Disease Pathways (35th Symposium)
 - 2009 – The Evolution of Biology at York: Past, Present, and Future (36th Symposium)
- April 16 and 17, 2009 – **Ecojustice Conference: How will Disenfranchised Peoples Adapt to Climate Change?** This two-day conference at York University brought together non-governmental, academic, and government speakers from India, South Africa, Brazil, and Arctic Canada to discuss strategies for climate change adaptation and mitigation. The steering committee included faculty from FES, Arts and York International. Funding came from Environment Canada (to Professor Kaz Higuchi), the International Polar Year GAPS (Gas Arctic People and Security) Project and VP Academic Sheila Embleton.

COMMITTEE REPRESENTATION

- **YORKW!SE** intends to promote campus stewardship and quality of life through awareness campaigns, and by engaging students, staff and faculty in campus sustainability initiatives. IRIS has a seat on YORKW!SE and provides advice and expertise, as well as funneling projects to the organization for promotion to the larger university community.
- **Council of Research Directors** was created by the Vice President, Research and Innovation (VPRI) to bring all the Directors of the 26 different research institutes at York University to discuss common issues and ways to collaborate better and enhance the research environment at the University. In general, IRIS advocates for more inter-disciplinary research to allow for different viewpoints that are needed to tackle the worlds' complex issues. The Council of Research Directors and IRIS believe research needs to be disseminated using appropriate language for different stakeholder groups so that it might be taken up by society at large.

- **President's Sustainability Council** was created by President Shoukri with broad representation from across the University to provide input on how to address sustainability issues on a pan-University level. IRIS has a seat at the Council and has presented our work. The IRIS coordinator also participates in the food sustainability sub-committee for the council.

PEDAGOGY

INTERNATIONAL SUMMER SCHOOL IN GREEN BUILDING

In May of 2008, York University and the World Green Building Council signed a Memorandum of Understanding. IRIS largely facilitated this agreement. This MOU led to the development of an International Summer School in Green Building design titled "Design for Sustainability in the Built Environment: Interactive Workshop" to be hosted by York University from June 22 to July 10, 2009, and run through FES. The funding for this summer school is being generously provided by the World Green Building Council, Ontario Power Authority, Toronto Regional Conservation Authority, Earth Rangers, and York University, including IRIS (other funders are forthcoming).

The purpose of this summer school is to bring together university undergraduates from around the world in order to foster literacy in green building strategies in an international context. The program will feature unique interactive workshops, practice design methodologies and tools, collaboration with students from around the world, field trips and cross discipline design charrettes, guest lectures from experts in green buildings, and classes at the LEED-Gold Earth Rangers Centre.

SUSTAINABILITY COURSE FOR HUMAN RESOURCE PROFESSIONALS

IRIS has led the initiative to develop a non-degree course for human resource professionals to educate them about sustainability. To date strategic planning meetings have been held and the Atkinson Continuing Education program has agreed to host the program. Course development work will be our main objective over the next six months.

CAMPUS SUSTAINABILITY INITIATIVES

CARBON OFFSETTING

Carbon offsetting at York University began with members of IRIS and the University bookstore management discussing how to make course kits sold at the bookstore carbon neutral. After the creation of a business case for carbon offsetting, and many discussions with York administrators, the right mechanism to allow purchasing carbon offsets was found. The bookstore utilized Zerofootprint as its service provider, and now the production of course kits at York University is carbon neutral. YORKW!Se has taken over the role of marketing this initiative (see Appendix 3).

The second component of this project was to engage the York community in their knowledge of issues around climate change and carbon offsetting. This involved surveying members of the York community over the winter and spring of 2008. Ultimately, this led to the publication of a report summarizing the results of the survey, research about carbon offsetting, and publicity around the

carbon offsetting initiative that was distributed widely across campus and is available on the IRIS website.

The third step was led by IPY Project Manager Annette Dubreuil, who convened discussions with Research Accounting and Procurement, that culminated in the creation of an account code which will allow the University to track carbon offset purchases.

UFORE

UFORE – the Urban Forest Effects model began in the summer of 2007 and involved members of IRIS measuring the tree canopy on the York University campus. The UFORE model was developed by the United States Forest Service as a computer model for assessing the carbon sequestration capability of an urban forest using specific measurement protocols. Over the course of 2007 and 2008, IRIS researchers initiated a complete inventory of the trees on campus collecting data on type of species, tree diameter, height, and plot size. Subsequently, the UFORE computer model has analyzed the data and members of IRIS are, as of May 2009, finalizing their report.

FOOD SUSTAINABILITY

Food sustainability on campus began as a desire to understand the way food is managed at York University in the summer of 2008. The intention was to assist the management of York's Food Services in any research they needed conducted as well as researching what other universities have done and the options available for changing University practices towards a more sustainable path. Upon building a rapport with the management of York's Food Services, IRIS members decided to conduct another survey, this time into the attitudes and choices around food of members of the York community. The survey was completed in April of 2009 with over 1200 members of the York community responding. Analysis of the results is well underway with a report expected sometime in the early summer. The report will include the research into the environmental impacts of food production and consumption, debate around the pros and cons of available options, the survey results, and recommendations for the University administration.

Students at Glendon have also been leading a number of food initiatives that IRIS has supported. In the first initiative, students are working to open a student run cooperative named L'Unik Café in September. The second initiative involves placing a bid to provide food service at the Glendon cafeteria, which would also involve local food production, and a focus on local/organic food. These students worked to conduct our food survey, and in return we are supporting them with the results and acting as facilitators as needed to move forward their respective projects.

E-WASTE

Cell phone recycling is an initiative that began as a conversation between IRIS, York University and the Toronto Zoo on launching a cell phone recycling program at York that would be in collaboration with the Toronto Zoo's gorilla habitat protection program ECO-CELL. This initiative is in the preliminary stages and is being discussed with YORKW!SE, as are larger e-waste issues on campus.

**What might a sustainable campus look, sound, taste and feel like at York?*

There has been no shortage of ideas at York, but with all the expertise living at the University, many have questioned the lack of meaningful, institutional change. The need for an inspiring sustainability vision, integrated with the broader goals of the university is needed now more than ever.

Given the inherent inter-disciplinarity of sustainability, taking on the task of nurturing a culture of sustainability on the campus cannot be the responsibility of one department alone – and cannot be seen as such. Furthermore, a visioning process to determine what a sustainable campus in the context of York University means, necessarily requires broad-based participation, engaging the talents and ideas of everyone wishing to be involved.

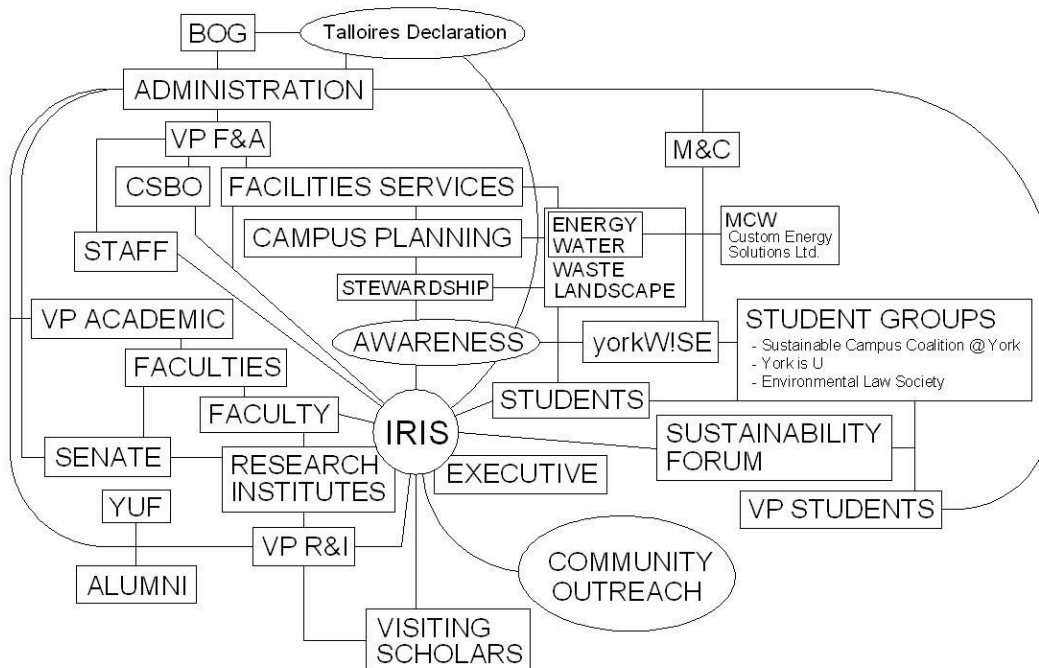
In Fall 2007, insightful guests including David Orr, Mark Roseland and Henry Giroux spoke as part of the Education by Design Seminar Series (sponsored by FES with support from IRIS and the Faculty of Education), a series which attempted to offer some ideas on what a sustainability vision might consist of by encouraging participants to think about aspects of the University’s “hidden” or “unconscious” curricula.⁷ A more interactive forum, with demonstrated support from senior leadership, pan-university and community participation and key deliverables might be a welcome sequel.

A vision is not a static statement to be posted on a web-site, or simply a marketing tool; rather, it consists of an inspiring set of collectively determined values and principles to be revisited on a regular basis. The process of visioning (or creating shared vision as Peter Senge describes in The Fifth Discipline) can be just as, if not more, valuable than the vision that emerges, serving as an opportunity for community renewal. To be effective, commitment is needed from senior leadership with demonstrated resources and support and inclusive engagement encouraged across the campus community.

⁷ David Orr uses the terms “crystallized pedagogy” or “built pedagogy” to raise questions like, what do we learn about our organization’s values from its physical environment? This paper does not want to limit such questions to the University’s built environment, but encourage similar reflection regarding on what we learn from the natural environment, governance structures and community partnerships (i.e. Everything that’s not part of the formal curriculum).

**Where is the on-going conversation happening about what sustainability means at York?*

IRIS is well positioned to support this conversation due to its demonstrated capacity and its potential for leading and facilitating inter-disciplinary and inter-departmental collaboration due to its pan-university representation and mandate. See figure below for a proposed sustainability network with IRIS as the hub⁸.



YORK UNIVERSITY SUSTAINABILITY NETWORK

⁸ This report was intended to provide direction to Facilities Services in promoting sustainability and stewardship on campus, especially in relation to the Energy Performance Contract that Facilities Services has entered into with the engineering and energy management firm, MCW Custom Energy Solutions Limited (MCW).

With IRIS depicted as the centre of activity, the diagram above depicts IRIS' function as an institute that networks students, faculty, staff and administration. IRIS, as imagined, would also facilitate the implementation of sustainability goals through its openness to involvement in awareness and stewardship programs and events. The diagram is not a hierarchical list of campus institutions, but an expression of the potential that IRIS has for interdisciplinary collaboration among faculties, and communication and cooperation throughout campus organizations.

A Sustainability Forum (indicated in connection to the VP Students office) could have a direct link to a Sustainability Coordinator through IRIS. The Forum could be open to the public, consist of students, faculty and York staff, including the VP students, and could meet regularly. Its purpose would be to gather information about existing student sustainability initiatives at York, and to increase the awareness of campus sustainability goals, especially by allowing students to make meaningful contributions to programs, initiatives, and conferences. Faculty, students, staff and guests could use the Sustainability Forum to present their questions, concerns, research and proposals.

Source: Report on “Promoting Sustainability with a Focus on Energy Management” by Kathy Raddon, MES & Mariya Ivanytska, BES, York University Facilities Services, August 2006

In addition to networking and collaborating with other sustainability research institutes on university campuses, IRIS has an opportunity to create a home for campus sustainability research, liaise with an increasing number of sustainability coordinators/directors and advance the field.

As the hub for sustainability research on campus, IRIS is uniquely positioned to enable and empower faculty and staff to engage in cross-disciplinary research projects that will position York University at the forefront of climate change initiatives in an international context. As the institutional home for sustainability research, IRIS has a critical role to play in framing and articulating next generation sustainability research projects that will:

- Focus on the benefits of cross-disciplinary collaborations in sustainability research
- Engage both faculty AND staff in a new research model that will integrate academic research with critical applied applications, particularly in green building design and stakeholder engagement in green initiatives.
- Engage both graduate and undergraduate students from all disciplines in sustainability research that will building literacy skills in sustainability and prepare the next generation of leaders for climate change initiatives

IRIS has already taken the lead in developing and implementing unique sustainability projects and programs. For example:

- New International Summer School in Green Building Design (in partnership with York International, Faculty of Environmental Studies and the World Green Building Council).
- Cross disciplinary independent case study course in "Design for Sustainability" in collaboration with the Schulich School of Business, Faculty of Environmental Studies and Ryerson University (see IRIS website: completed projects)."

ACTION RESEARCH AND LEARNING

“Our universities are being asked to address the complex social, economic, ecological and cultural needs of our communities, yet it can be argued that “[t]he institutions that claim the position of the premier and most advanced knowledge producers in society frustrate learning and social change in most of their internal processes and their articulation with the surrounding society” (Levin et al., 2001: 103).

While there is growing consensus surrounding the moral obligation of universities and colleges to model sustainability (“walk the talk”) in all areas of the institution, an important area of campus sustainability research examines the implications for organizational change among universities and colleges.

** How does the organization learn?*

Kofman and Senge (1995) identify three main dysfunctions in our institutions: fragmentation, competition and reactivity. The discipline-centred design of most colleges and universities perpetuates fragmentation, and an overemphasis on competition reinforces our fixation on short-term measurable results. Learning, rather, often requires altering the flow of time – slowing down the action to enable reflection on tacit assumptions and counterproductive ways of interacting. Reactiveness, however, has gradually become a way of life. We have grown accustomed to changing only in reaction to outside forces, yet the wellspring of real learning is aspiration, imagination, and experimentation (Ibid.).

York University is rich with researchers who study PSE institutions, organizational behaviour and a wealth of other relevant subjects. An invitation to interested researchers to develop an on-going “self-study” of York University vis a vis its sustainability journey could potentially attract a great deal of profile and generate powerful insights into the learning behaviours of large, bureaucratic institutions.

CONCLUSION

As mentioned earlier, this paper is intended to provide a point of departure for debate and dialogue to hopefully spur further action on York’s sustainability journey, while detailing some of IRIS’ initiatives to date. Throughout the paper, a number of questions and suggestions are raised, while retaining a key focus on a community-building approach for nurturing a culture of sustainability on the campus. Emphasis is placed on the need for a strong, inspiring vision for what sustainability might mean in the context of York University, cultivated by an inclusive visioning process with demonstrated support from senior leadership. Such a visioning exercise may serve as a powerful opportunity for community renewal and reflection on the purpose of PSE. With access to a department of Higher Education studies in the Faculty of Education and a range of interdisciplinary scholars, York has the opportunity to demonstrate leadership in campus sustainability research by situating sustainability imperatives in the larger context of a complex and changing PSE landscape.

“Schools, colleges and universities should be engaged in a deliberate process of reinventing themselves and, in the process, helping to reinvent society” (Rees, 2008:12).

FURTHER QUESTIONS

- What should be the priorities for engagement?
- To what extent can sustainability be integrated into existing activities?
- What is the risk to York’s reputation of failing to respond effectively?
- How can York promote sustainability literacy throughout the life of the organization? (i.e. not just students)
- What can York learn from other organizations, businesses, NGO’s, municipalities?

LEVERAGE POINTS

- Find synergy with those working on enhancing student engagement/experience
- Leverage the leadership of the President's Sustainability Council
- Maximize the interdisciplinary gifts offered by IRIS
- Build on existing initiatives and promote collaboration among departments and disciplines
- Think beyond the campus and leverage the activities of groups such as the CITY Institute and York's Secondary Plan Review
- Engage the "in between" spaces (i.e. university operations) in academic life⁹

⁹ For an example, see the SEEDS program at UBC – www.sustain.ubc.ca

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APPENDIX 1: SELECTED SUSTAINABILITY INITIATIVES AT YORK

NOTE – This list aims to highlight sustainability initiatives happening at York University. Further details are available on York’s website, www.yorku.ca. It is hoped that in the near future York University will begin to produce annual Sustainability Reports that cover all of York’s many sustainability initiatives.

ACADEMIC/RESEARCH DEPARTMENTS AND INSTITUTES

- Biology Department, Geography Department, Chemistry Department
- Centre for Atmospheric Chemistry
- City Institute at York University (CITY), established in 2006
- Faculty of Environmental Studies (FES) embraces interdisciplinary scholarship at the undergraduate, masters and doctoral levels
- Institute for Research and Innovation in Sustainability (IRIS), which includes a focus on campus sustainability research, as well as regional/international interdisciplinary research
- Osgoode Law School includes an Environmental Law Faculty which focuses on both local and global legal issues pertaining to sustainability - students may combine a Masters in Environmental Studies with a law degree from Osgoode
- Schulich School of Business runs programs related to sustainability including the Haub program, Business and Environment program in partnership with FES; Sustainable Enterprise Academy (SEA); Sustainable Education Academy in partnership with Faculty of Education
- Strengths in social dimension of sustainability in Arts, Atkinson, Glendon
- UNESCO/UNITWIN Chair in Sustainability Education
- York Institute for Health Research

STUDENT-BASED CLUBS

- Bachelor of Environmental Studies Student Association
- Campus Greens
- Corporate Social Responsibility Society – Schulich Undergrad Club
- Environmental Network @ York University
- Environmental Outreach Team organizes Environmental Awareness Week at York
- Idle Free Ontario
- Las Nubes Student Association
- Maloca Community Garden
- NetImpact student chapter at York
- Regenesis @ York University
- Sierra Youth Coalition Local Sustainable Campuses Coalition (Campus Sustainability Assessment Framework)
- Sustainable Campus Coalition (Purchasing Coalition, Fair Trade Coalition)
- *UnderCurrents* Journal shares an office with Maloca Garden and annually produces a journal that offers new perspectives on the environment and culture.
- YFS sustainability/environmental coordinator

OPERATIONS

- Green building technologies – i.e. the TEL building
- Grounds management built around green practices
- Food Services
 - o Local/sustainable foods
 - Developing proposal with Aramark and Local Food Plus
 - Las Nubes available in 8 locations
 - Requiring fair trade coffee in all new contracts
 - o Food & packaging waste
 - Packaging continues to be evaluated but is dependent on what the waste processors will accept
 - Re-launching the “lug-a-mug” program to reduce the number of disposable cups consumed
 - Starting to consider portion sizes from a nutritional perspective
 - o Composting & green waste
 - Kitchen waste has been composted for several years
 - Exploring diversion of some green waste to the Maloca Community Garden
 - o Launching L’Unik Café student cooperative at Glendon in September; will focus on organics and local food
- Waste management diverting increasing percentages of waste to recycling and recovery
- Increasing the percentage of transit use relative to private vehicle use
 - o From 2001 to 2006, there was population growth of 28% which was absorbed by transit, cycling, carpooling and walking
 - o 1700 bus trips per day servicing York U (TTC, GO Transit, YRT/VIVA, Wheeltrans, Mobility Plus, Greyhound)
 - o York U. participates in the Plug-In Hybrid Electric Vehicle Pilot Program with the Toronto Atmospheric Fund, A123 Systems and Hymotions
- YORKW!SE campaigns
 - o Energy Project (upgrades and retrofits)
 - Reduce the consumption of electricity, natural gas, steam, chilled water and domestic water on campus;
 - Renew and enhance air conditioning, heating, ventilation, lighting, building controls, compressed air and water-use in facilities;
 - Increase occupant comfort by improving the teaching, learning and working environments;
 - Showcase innovative, renewable energy technology in order to enhance students’ learning experience;
 - Reduce greenhouse gas emissions;
 - And provide design, technology and training solutions to realize continued utility cost savings.
- Green supplier preference proposal
- Custodial Green Cleaning Program – 75% underway

OTHER

- Learning for a Sustainable Future – a non-profit working to incorporate education for sustainable development into the curriculum across the country, k-12, as well as supporting teachers to do this work
- North Toronto/Vaughn Smart Commute is a community organization that operates out of York University to encourage car-pooling, cycling, and the use of public transit while commuting in the area

APPENDIX 2: SUMMARY OF THE RECOMMENDATIONS FROM THE PRESIDENT'S TASK FORCE ON SUSTAINABILITY (2001)

1. ENERGY

E1 - We recommend that the University proceed with these energy management initiatives as expeditiously as possible over the next 5 years and that the Energy Management Working Group be encouraged, through public recognition and other means, to continue to develop cost-effective energy management projects for the Keele campus.

E2 - We recommend that the Finance Division undertake a feasibility study of introducing local metering with the energy savings being shared by the building occupants (e.g. academic units) and the central administration.

2. WATER

W1 - We recommend that these water conservation initiatives be continued.

3. WASTE MANAGEMENT

WM1 - Use York's web site to raise the profile of sustainable practices on the campus, including waste management.

WM2 - Include in orientation for incoming students an education/awareness program on good environmental practices, including the 3Rs.

WM3 - Student Housing Services and Facilities Management should inform students in residences and apartments of the need and means to use the available recycling facilities.

WM4 - Improve existing facilities to assist students with easier access to fine paper recycling facilities.

WM5 - Review the need to reappoint a Waste Management Co-ordinator and/or consider transferring the functions to the proposed position of Director of Campus Sustainability (see recommendation S3 below.)

WM6 - Explore partnerships with municipal governments or organisations that may provide resources for enhancing educational and promotional activities, and infrastructure to reduce, reuse and recycle (the 3Rs).

4. LAND USE PLANNING

LP1 - A process should be initiated to incorporate more completely the sustainability principles outlined above in the planning processes at York and, if necessary, to revise the Master Plan.

5. BIODIVERSITY

B1 - The University should conduct an inventory of species on the Keele campus. For an urban/suburban site, a relatively low cost inventory would likely turn up a fairly high number of species.

B2 - Naturalized, low input areas are cost-effective and should be promoted on the campus.

B3 - York should explore the possibility of the Keele campus becoming a site in the Canadian Environmental Monitoring Program Network (EMAN).

B4 - Facilities Management should audit the current use of pesticides, herbicides and fertilizers and assess the feasibility of further reductions.

6. TRANSPORTATION

T1 - York should articulate a clear, comprehensive transportation policy.

T2 - The Parking and Transportation Services Division should be renamed the Transportation Division, and its mandate expanded to include involvement in all transportation issues related to York University.

T3 - Transportation planning should continue to involve informing, advocating, integrating and co-operating with the City of Toronto and 905 Region governments and public 19 The Task Force notes that the Transportation Sub-Committee of the Presidential Advisory Committee on Parking prepared a detailed and useful set of recommendations to reduce the demand for parking on the campus (February 8, 2000.) 36 transportation providers such as TTC and GO Transit to increase public transportation accessibility to the campus.

T4 - The Keele campus' transportation needs should be promoted through continued membership in and leadership of the Black Creek Transportation Management Association.

T5 - Programs and inducements should be developed to decrease the total number of cars, and single-occupant cars, entering the campus.

T6 - York University Development Corporation (YUDC) should be included in any transportation planning process for the entire Keele campus.

T7 - A long term parking reduction strategy backed by appropriate targets should be developed, vetted through appropriate University organisations, and communicated to the University community. Within this strategy, the shift from surface parking to structured parking should continue. Parking prices should rise to pay for surface parking alternatives.

T8 - The use of non-motorised transportation modalities should be encouraged for travel to and on campus, e.g. through the provision of cycle lanes and secure storage.

7. BUILDINGS

B1 - The Task Force recognizes York has made considerable progress in incorporating principles of sustainability in new buildings as exemplified by the new Computer Science building (opening in 2001); similar though less significant improvements in operating efficiency will be incorporated in the Technology Enhanced Learning Building (opening in 2003), but less so in the planned new building for the Schulich School of Business (opening in 2003.) The next step is to develop a more comprehensive set of design criteria and processes for sustainability in new and renovated university buildings.

8. CURRICULA

C1 - Take a “whole institution” approach to the many learning opportunities available to students to study and participate in the practice of sustainability. Form a committee with representatives from each faculty, department or school, appointed by the deans to develop a co-ordinated approach to incorporating sustainability concepts, ideas and information in the curriculum.

C2 - Introduce sustainability into the general education courses required of each undergraduate at York.

9. GREEN ENTERPRISES

G1 - Commercial facilities should work with campus businesses to investigate setting up joint purchasing programs of environmentally preferred products at discount prices.

G2 - Retailers should consider giving more visible price incentives for customers who make purchases with a social or environmental benefit; for example, by using their own mugs or containers at food outlets.

10. LOCAL COMMUNITY OUTREACH

LC1 - York University should enlist the support of key individuals and organizations from the broader (external) community by establishing a Sustainability Advisory Council to discuss opportunities for collaboration on academic and institutional sustainability practices, including economic, social and environmental initiatives.

11. SUSTAINABILITY AT YORK UNIVERSITY

S1 - We recommend that the President sign the Talloires declaration on behalf of the University.

S2 - We recommend that an open visioning process be initiated, possibly through the York Centre of Applied Sustainability, to develop a vision statement for York University built upon the principles of sustainability.

S3 - The President be designated the Sustainability “lead” for the University; and should initiate a feasibility study for the appointment of a Director of Campus Sustainability whose position would be financed out of the various operations savings achieved through the introduction of a Sustainability Management System (SMS).

S4 - There should be further work undertaken on the development of indicators of sustainability, based on the work of the task Force, and a reporting system should be established to track York’s progress towards sustainability. (This would be part of the SMS proposed in Recom. G4)

S5 - University-based organizations (especially labour unions and student groups) should be encouraged to appoint sustainability champions who would promote awareness of sustainability issues and opportunities affecting their organization, and meet periodically as a group to consider collaborative ventures.

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