

Integrating Sustainability into Design Education: The Toolkit



In October 2009, the Designers Accord convened 100 progressive individuals from academic and professional institutions all over the world for two days of highly participatory discussion, planning and action around the topic of design education and sustainability. The main activity was small-group brainstorming focused on answering these questions:

How can we continue to move design education forward?

How can we create a common language?

How can we communicate best?

How can we design a sustainability curriculum?

How can we update existing design programs?

How can we turn abstract ideas into concrete actions?

How can we help students work in more meaningful ways?

How can we measure success?

Part of the outcome from the Summit is explored in the following pages. The complete content is available at edutoolkit.designersaccord.org, where site users can add examples of their own discussions, exercises, and projects, as well as adding feedback, comments, and illustrations to enrich or improve other posted examples. These examples are real-world educational activities that materialize the concepts described in this PDF and on the site.

For more information about the Designers Accord, visit www.designersaccord.org or email info@designersaccord.org.

This Designers Accord project was made possible with generous support from the following:

Summit Partners:

Summit Sponsors

Summit Supporters:

Adobe A Foundation

Sustainable Minds KODA Alter Eco / Baggu / Communication Arts / GOOD / IDSA / New Leaf Paper / Peet's Coffee & Tea / Yellow+Blue / San Francisco Green Map / Sacramento City College

Autodesk[®]



How can we continue to move design education forward?

The next generation of designers will require a deeper personal, social, and cultural connection to their work. Design education will need to structure opportunities for students to develop deep, first-hand experience, engage empathetically, and cultivate broad understanding.

In order to integrate sustainability into our current educational programs, we need to empower students to initiate, direct, and become stakeholders in real-world design challenges. Design education is shifting from traditional pedagogical structures, where a professor prepared assignments for students to illuminate and reinforce aspects of the course curriculum. Historically, students would solve these faculty-generated "design problems" in a manner that fulfilled a series of prescribed and predetermined learning outcomes. While this approach may still have value in some areas of the curriculum, faculty are looking for more ways to engage students deeply in the underlying content and to connect them to the broader context of design decisions.

As we meet curriculum needs, we must also embrace networks for knowledge- sharing, open-access, and collaborative processes. The future of design education requires that students learn within multi-disciplinary and experiential frameworks, act collaboratively, and think broadly, deeply, and critically. Sustainability is a natural characteristic of this systems approach.

Mindsets

Design thinking rather than design

Reject the "what?" and ask "why?"

Design is an active process, not a conclusion. Design can provide innovative and enabling alternatives, not just the creation of artifacts. Create a learning environment where thinking-through is celebrated over looking-at. Tackle questions regarding how we should ultimately live, rather than how we can merely alter our present way of living. Highlight the relationship of the designer to the ideal behavioral outcomes of products, rather than the products themselves. Stress the value of synthesizing new ideas on the fly, and support safety in experimentation. Encourage strategic thinking in design, where the designer's responsibility goes beyond form and function, to value and viability.

Change Agents

Transform companies, industries, economies through leadership training

Individual products or services, no matter how sustainably designed, will still make only limited impact in efforts to stop global climate change. We must transform entire companies, industries, and economies. Contrary to the typical design program output of a portfolio of aesthetic excellence, the greatest measure of success in a sustainable design program is the number of change agents produced - the number of people who go on to not just understand sustainability but to act on it, incorporating it into everything they design. Change agents do not just act individually, but enliven others and create a cascade that ripples out from small numbers of graduates to large numbers of projects, companies, and industries.



How can we continue to move design education forward?

Design in context

Create design challenges in context

Not only should students engage with the people involved in real-world design challenges, but they should recast themselves as stakeholders too, not outside agents. Learning within context provides opportunities for asking questions, thinking with a systems perspective, and embracing other disciplines as part of the design experience. It promotes the idea of muscular design, possessing the power to affect all aspects of our planet and our society.

Tell stories

Students can create meaning and find work meaningful

Facilitate moments that enable students to form narratives and storytelling experiences. Narratives provide a pause whereby students can contemplate meaning, form their opinions, and then express themselves in a manner that connects to the listener. Additionally, students should practice expressing themselves in non-visual language. As design becomes more artifact-agnostic, persuasive speaking and appropriate language will become increasingly important.

Reverse-engineer traditional hierarchies

Transform companies, industries, economies through leadership training

Individual products or services, no matter how sustainably designed, will still make only limited impact in efforts to stop global climate change. We must transform entire companies, industries, and economies. Contrary to the typical design program output of a portfolio of aesthetic excellence, the greatest measure of success in a sustainable design program is the number of change agents produced - the number of people who go on to not just understand sustainability but to act on it, incorporating it into everything they design. Change agents do not just act individually, but enliven others and create a cascade that ripples out from small numbers of graduates to large numbers of projects, companies, and industries.

Teach soft-skills

The world of design is changing

Students must become self-learners, self-starters, facilitators, and motivators for sustainable change. Provide opportunities for students to practice and embrace these roles through facilitation of collaborative projects, creation of a studio-culture, exposure to student-initiated projects on other campuses, and support of projects outside the standard curriculum.



How can we create a common language?

Traditional pedagogies advise educators to establish a list of terminology – a common semantic language – when introducing new and complex topics. Around the topic of sustainability, it seems that creating a shared vocabulary could make great advances in easing communication across disciplines, and moving past semantic hurdles.

In fact, key terms on the subject of sustainability do exist: dictionaries, Wikipedia, guidebooks, and textbooks offer definitions from multiple perspectives. Despite these known references, there is still a running debate about how we might even define the term sustainability, much less the adjacent terms.

While the concept of normalizing language has merit, the very nature of adopting sustainability as part of a value system – not an objective checklist of tasks – means that we need a different approach. In fact, attempting to create a stable and definitive set terminology would also ignore our culturally diverse design community. It would also not account for the importance of a design student's personal understanding of the concepts necessary to practice sustainable design.

Sustainability is evolving and personal. One must discover it herself to truly relate to it. In the learning environment, educators must establish empathy; acknowledge existing frameworks, information, and organizations; and develop a common center of understanding. These actions can result in an emergent and relevant language of sustainability within a given context.

Mindsets

The "S" word

Talking about sustainable design is not the best way to talk about it

Focus on leadership skills, participation, transparency, engagement, networks, human centered design, respect, and active listening. Ask students to rethink current paradigms and to envision a better future.

Understanding is the language

Sustainability is a frame of mind, not a list of frameworks and terms

By undertaking projects that address class/race/gender, socio/economic status, environmental stewardship, transparency, engagement with local and global communities, networks, human-centered design, multiple disciplines, and active listening, students will experience sustainability through a common understanding. The common understanding is the common language. It is not necessarily a spoken language.



How can we create a common language?

Guide and facilitate - don't dictate

Allow students to discover meaning on a personal level

Use existing concepts and case studies to encourage students to explore their personal conceptions of sustainability. This establishes empathy – an essential element in forming a common language or common understanding.

Texting + textbook

Augment with social media

Embrace the casual conversational tone of social media over the highly structured crit. Use social media and its immediate short-form content like texting and twittering as learning tools. The seamlessness and accessibility of these avenues of communication can provide a means by which conversation can continue outside the classroom. Social media provides a more casual and non-committal medium, and a method to brainstorm ideas and new possibilities for a project amongst all stakeholders and co-creators.

Experience locally, apply globally

A personal experience can lead to a larger application

Create a relationship between a personal (micro) experience and a global (macro) awareness. Once students have a common understanding and language at a small scale, engage them with larger related issues. Facilitate a personal understanding of sustainability in a collaborative and co-generative manner. The need for sustainable design exists in our everyday lives. Find meaningful, local, and personal opportunities to apply sustainable design.

There's no such thing as sustainable

Less bad does not equal good, but it's a start

In an effort to form a common language, frame the concepts as being within reach. Provide exposure to opportunities that are attainable – this may be a student's first introduction to sustainable design. Shift out of the absolute and into the relative.



How can we communicate best?

Educators seeking institutional change are highly frustrated. Sets of stakeholder – students, faculty, administration, facilities, trustees, board members – have a diverse priorities, and there are competing interests that occasionally or often create friction between these stakeholders. Competition for limited resources, established ideas around legacy, and limited time – combined with an inability to see personal benefit – can agitate and divide a great school. Adversarial relationships and controversial school politics limit progress.

Reframing "communication" as "engagement" can offer benefits and opportunities to all stakeholders. When specific populations are induced to participate and understand the benefits of working together in a new way, the priority of discipline-and departmental boundaries is diminished, collaboration can flourish, and everyone is rewarded.

Note: Communicating needs and making requests does not engage community. Instead a rich, safe, and multi-directional conversation needs to take place.

Mindsets

Listen Deeply

Employ empathy as a way to think differently

School populations, like students and facilities, often see sustainability as an increase in workload. Recognize and empathize with their concerns. By listening empathically, you can find a common ground upon which to connect and then work to develop an innovative manner to start to change perceptions. The act of listening empowers the concerned individual or population, who was previously unheard. Listening will inform your next actions and choice of words, and will soften the group for you to be heard when you are ready.

Transparency

Open source and share

Transparency requires removing barriers to sharing and learning. Invite stakeholders to professional workshops, distribute curricula, publish successes and failures, share projects, examples, cases, and questions.



How can we communicate best?

Create the culture

Nurture, not shock and awe

When a pre-existing, hierarchical culture does exist, consider taking small steps versus initiating a culture shock.

Allocate ample time, and make it easy for different departments to gather on both small and large scales. Focus on opportunities and use the language of opportunity in your written and oral communications.

Create a common vision that highlights community, not the individual. Work to include a sustainability statement in the school's strategic plan and mission statement, so that there is a common starting place for everyone involved.

Help empower students to become ambassadors. Support groups that typically feel disenfranchised to take charge, and create their successes. Help the disempowered to become leaders by paying attention to their successes, not their limitations or failures.

Embrace new digital/social networking tools that encourage active, non-hierarchical participation and honest feedback.

Lead by example

And seek out great examples

Imagine what your school would ideally be, fearlessly and optimistically. Manifest that vision in your behavior and conduct. Look for examples of what other schools are doing, and emulate successes. Initiate conversations and projects that contribute to the well-being of the school. Promote efficiency and cost-savings, and emphasize the value of sustainability as it relates to ROI, retention, endowments, and marketing opportunities. Highlight the actions and achievements of role models.

Identify, Connect, Build

Don't start from zero

Become a resource for connecting people. Understand how to connect people with compatible skill sets to accelerate intelligence around the topic of sustainability. Don't start from zero, enable people to build on each other's knowledge and experience.



How can we design a sustainability curriculum?

Most design programs recognize the importance of sustainable design, and many offer one or two courses that address specific social and environmental issues or sustainable design in general. A few design programs offer a full range of curriculum in sustainable design, allowing students to earn certificates and degrees – these are specialized and rare. Most design programs have single projects within a semester-long course that start to address sustainability issues in design.

This one-off approach has clear limitations. Sustainability needs to be integrated as a critical lens in design, not to be considered as an extra-curricular concern, or as an elective. In fact, sustainable design should be synonymous with good design. As the tenets of sustainability become more blended with standard design education, there is great value in modeling a core sustainability curriculum to provide the essential foundation and context for this work. The core sustainability curriculum is best designed by fully integrating sustainability into thinking, doing, and applying:

- How to think: systems/design/critical thinking
- How to do: skills (methods, materials, research)
- How to apply: experiential learning

The purpose of design education is to graduate skillful designers with a fundamental understanding of sustainability principles, in theory and in application, capable of working in multidisciplinary teams, and aware of the context and systems, which design addresses. This may be accomplished by evolving a curriculum, which focuses on design and sustainability in the context of systems literacy, skills, and experiential learning.

Mindsets

Sustainability Trio

From thinking to craft

In an effort to fully integrate sustainability into the DNA of a design program, consider restructuring course sequencing to accommodate coursework in thinking, doing, and applying each term. These must be taught in a cross-disciplinary and collaborative way:

(Thinking) Design-relevant thinking: theory, history, math, science, literature (Doing) Trans-disciplinary: studio, applied projects (Applying) Skills: discipline-specific craft-based activities

I'll show you my footprint, if you show me yours

Engage on-campus projects as "Learning Laboratories"

Measuring a design department's carbon footprint or working out a campus building's Life Cycle Assessment (LCA) can convert a seemingly dry activity into a local and relevant design project. This project provides students with the opportunity to apply discipline-specific design thinking and to internalize sustainability on a personal level.



How can we design a sustainability curriculum?

Trans-disciplinary thinking is systems thinking

Encourage cross-campus and cross-discipline collaborations between biologists, anthropologists, historians, sociologists, engineers, and designers. These well-rounded relationships naturally support a strong systems thinking component in the curriculum.

Themesters

Choose a new theme each term or year to explore

Take a multi-semester or term approach to sustainable design using themes for each new term or year. Themes could include food systems, renewable energy, reclamation, health care, and transportation. Each semester or term would require coursework in thinking, doing, and applying relevant to the selected theme.

Hand off the torch

Teach students to learn and to lead

As educators, we are responsible for inspiring autodidacticism, encouraging our students to learn and think independently. Curriculum should structure projects outside the classroom so that students can learn to lead, co-generate, and collaborate.



How can we update existing design programs?

Curriculum is the structure and framework for an educational program. Traditionally, design programs utilize a curriculum that includes core (foundational) courses and more specialized or design/medium-specific courses. Over time, many programs adjust course curriculum in response to industry needs, new technology, or new design paradigms. Sometimes this means creating a new course or even a sister program, but sometimes change occurs slowly and in small increments through established curriculum.

Long-standing or founding department members often feel frustration when negotiating changes in curriculum. Many feel that teaching techniques and subject material have worked well over the years, and question why change might be needed. In terms of integrating sustainability into curricula, some faculty may believe that integrating economic and social responsibility will "water down" design curriculum. There is even greater fear that personal understanding or expertise in sustainability issues is weak. Addressing issues around environmental, social, cultural, and economic sustainability continues to be considered an "optional" consideration.

Sustainability and core design education (history, theory, practice) are not mutually exclusive. In fact, integrating sustainability in design curriculum should be a natural expansion because design thinking and sustainability thinking share the same perspectives:

- Experienced based models
- Systems thinking
- Students as initiators
- Open source perspectives
- Collaborative methods
- Measurable outcomes
- Incentive-based goals
- Interdisciplinary perspectives

Mindsets

Respect your department's culture

Work within department tradition to restructure and to rethink

Respect the work that preceded you. Sensitivity to the past will provide a deeper understanding of your department's history, and give insight into its current biases. Keep your intentions transparent and your conversations open so that you may empathize with concerns from others, and gain the most support possible.

Save the world, kill your program

Build for evolution, not perfection

Look ahead to see how you can best integrate sustainability into your program, knowing that design thinking has changed and will change again. Be mindful with processes so that those teaching in the future can avail of a flexible and emergent structure to build new approaches to future design and sustainability challenges.



How can we update existing design programs?

Interdisciplinary and multi-generational

Build a diverse framework

When faculty feels they lack knowledge or expertise in areas outside of traditional design, an interdisciplinary or multigenerational arrangement can enable learning and comfort in teaching and sharing new territories with students. Additionally, encouraging many stakeholders to participate democratically can uncover innovative ideas that may not surface when teaching in a discipline-specific tunnel.

Strength in numbers

Tap into the student change agents

When making changes to legacy curriculum and in building new programs, collaborate and co-generate with students. Students possess power and influence in academic institutions. Empower them! Invite students to planning meetings, engage them in research, and ask for their help in executing curricular changes.

1 degree of change

It's not really that different than what you already have

Changes needed to fully integrate sustainability into the DNA of a course or program are often just 1 degree from the existing curriculum. For instance, the sustainability version of "real-world experience" model may just be as simple as creating new partnerships with non-profits, social/environmental justice groups, and community service groups.

Think big, think small

Insist on scalable models

Design curriculum so that faculty may teach anything between a sustainable design exercise to a full blown sustainability focused course. Not only does this support academic freedom, but also it enables faculty to choose their level of comfort and to become stronger stakeholders.



How can we turn abstract ideas into concrete actions?

Theory provides a foundation upon which a collection of shared and divergent ideas can be explored. It is a valuable analytical tool for understanding and explaining sustainable design. Additionally, theory helps to create a commonly referenced set of principles that informs the actions one might take to balance complex environmental, social, economic, and cultural issues. Unfortunately, theory in the sustainability space is considered abstract and removed. In order to be meaningful, theory must be connected to action. Without that connection, theory exists merely for its own sake and becomes purely academic.

Theory is often taught through close reading, and analysis emerges through class discussion. Readings are supported with brief summaries or visual diagrams, helping to clarify materials whose meaning is sometimes abstract and difficult to grasp. While these methods advance the accessibility of theoretical constructs, case studies and personal action accelerate the assimilation of the principles of particular theories. Furthermore, a continuous reference to theoretical constructs throughout the design process helps make theory an active critical lens and benchmark against which to measure achievement.

Mindsets

Question authority

Interpretations are debatable

Theory must be understood and taught as a living and changing framework, rather than as a set of prescriptive codes. Students must be free to openly challenge and debate existing theories. In a nonthreatening environment, students can feel free to experiment with new ideas. They are free to question, and to ask for clarification and help. Continuous and varied feedback applied throughout the design process can help students to gain the self-confidence needed to formulate their own point of view, building on the theoretical foundation. Reflection is crucial for developing the insights that guide future actions and generate new concepts.

Mix & match

Embrace theory from other disciplines

Sustainable design deals with complex issues. This complexity requires knowledge, methods, and theories drawn from multiple disciplines. Theory must move out of its discipline-specific silo and into a dialectic exchange among a diverse group of stakeholders. Interdisciplinary work not only provides participants with a broader range of approaches, but it enables them to modify their respective approaches to form new methods.



How can we turn abstract ideas into concrete actions?

Big-picture thinking

Systems design can avoid a slippery slope

Infuse systems thinking into the iterative process. Sustainable design addresses problems that are not only complex, but also contradictory with elusive and changing requirements. Understanding and actively registering the context in which objects, services, artifacts, and people interact promotes empathy and more well-developed perspectives.

Systems are based on collaboration, reciprocity, and a primary concern for the community. Students learn the art of concession and compromise, in order to work collectively towards a shared goal. Their active involvement in the design process creates an emotional connection, which in turn produces a greater investment in the process. As new ideas emerge, new patterns of behavior develop which can lead to change and the development of new theories.

Aspiration to action

Adding a tangible context to theory

Process or project-oriented learning such as contests or competitions can also help students to connect theory with action. Experiential learning can help students and practitioners to understand the role of theory in planning, evaluating, and taking action. Make theory visible in the real world by encouraging students to incorporate narrative structures like stories and scenarios into their critical/reflective feedback and in their applied work. Use theory to inspire opportunity.

It's the system, stupid

Articulating connections across projects and disciplines

Systems are made up of elements, interconnections, and purpose. Good design considers each of these parts on multiple levels and scales. By being project-centered, rather than topic- or discipline-centered, we enable a more natural entry point into systems thinking. Theme-based classes that are concurrently or sequentially interdisciplinary can help structure a systems design pedagogy.

Theory-o-meter

Theory as a unit of measurement

Theory can be a qualitative evaluation tool to validate an idea or action.

Locating and tracing the strands of theory throughout the design process can provide a means for assessment and accountability. In order to do this, the basic principles of a theoretical framework need to be clearly understood (if not necessarily agreed upon) early on in the design process. Then theory can become a tool, rather than an abstract set of constraints and rules.



How can we help students work in more meaningful ways?

Traditional educational methodology would structure student assignments to be carried out in studio, by the student as a sole practitioner, with the oversight of a professor or critic. The new paradigm fully integrates the diverse ecology of principles of sustainable thinking and goes beyond this to employ a co- generative, experiential, and cross-disciplinary approach.

Co-generative Design work should be co-generated amongst stakeholders at all levels: students, faculty, administration, the school community, end-users, and the design community.

Experiential Where in the past design courses protect their traditional classroom boundaries, the next generation of design education welcomes the disturbances from external forces. Classroom walls must become permeable, and design challenges must engage real-world systems. The 'doing' in design must encompass a broader field of interaction, and collaboration must be a fundamental attribute of any meaningful design challenge.

Cross-disciplinary Collaboration that occurs across disciplines must no longer be an exception to the rule as much as a core component of a new design pedagogy. Designers do not need to master the other discipline's materials as a practitioner of that discipline would, but instead apply that discipline's knowledge to their own design work. An interdisciplinary experience shifts the entire curricular structure toward deeper and more meaningful learning opportunities.

Mindsets

You are responsible for the consequences

Considering intention and ethics

As part of the design process, challenge students to consider and articulate various potential consequences of their work, including an ethical analysis of the designer's intentions and the design's consequences. Ignite subjective passions amongst students through meaningful interactions with broader ethical considerations in lectures and reading assignments.

Stop and think

Supporting the critical role of reflection in gathering new insight

Reflection provides context for new insights and future actions. Ongoing introspection and discussion leads to richer critique where cultural, social, and aesthetic assumptions are challenged. By embracing a methodology of deep, critical reflection to cycle throughout the design process, designers will cultivate an ability to create holistic thinking and interventions.



How can we help students work in more meaningful ways?

Challenge assumptions

Encouraging active engagement through design iterations

Active engagement relies on needssolving rather than problem-finding. Needs are supported by primary research, field research, and empathic interactions with real people, rather than depending on what students or faculty perceive as needs. These opportunities for gathering new insights have deep and variant feedback loops, which should be duly recorded, acknowledged, and incorporated into design iterations. The iterative and responsive quality of the design process stimulates ongoing exchanges between stakeholders, and encourages co-creation at all levels. This mindset requires that projects be adaptable to real world dynamics in structure, processes, and assessments.

Don't be afraid to measure

Understanding the importance of checking, instead of check-listing

At the beginning of the design challenge, articulate achievable criteria for success, and be diligent about measuring project outcomes and processes. These criteria can be qualitative and quantitative. The purpose of measurement is to gather insight, not to declare success or failure.

Owning the learning

Empowering leadership through fluid authority

Empower students to partake as cocreators of the process (peer critique, community engagement, defining metrics for success). Those students have a stronger sense of ownership, resulting in a personal connection to the work. As part of the co-creation, encourage student-centered learning processes such as peer-to-peer learning, and student mentorship programs. When students engage with a project that has personal meaning, they will begin to understand, articulate, and invest in the shared experience and meaning of sustainability.

Value outcomes and process

Supporting experimentation on the foundation of process

Emphasize the importance of articulating process than merely outcomes in portfolios. Designers often begin a project with an understanding of the broader picture but through the phases of development, that context is lost. Whether intentionally (as a means of simplifying the process) or unintentionally (resorting to 'logical' norms of problemsolving hierarchies) marginalized, those elements are often the ones that add the impact of sustainability to the design.



How can we measure success?

Metrics to measure sustainability range from lifecycle analysis and gross national happiness, to carbon footprints and lifecycle costing. There are over 400 eco-labels in circulation that range from the architectural and product mainstays of LEED and Cradle-to-Cradle, to food certifications like Dolphin-safe and Certified Biodynamic. It would be fruitless to presume that there was a universally relevant metric for design programs to institute. And if there were, it would be near to impossible to select and administer.

Instead we are championing the integration of tight feedback loops for self-reflection and evaluation as a critical part of design. We advocate that measurement is integrated into the process, not used as an external evaluator.

This is a current and lively topic because traditional design education programs do not typically measure sustainability as part of student project evaluation. When it is considered, the impact of the resulting materials and/or made-objects is the focus of measurement. Additionally, surface-thinking measurement such as "amount of paper used" is often the depth of the evaluation, and often times attention is not given to why we need this artifact in the first place, or what the short- and long-term environmental, economic, cultural, and social impacts of the project are.

In an effort to fully integrate sustainability into designeducation, measuring both the final outcome (product, service, artifact) and the design process is integral. Since the decisions made early in the design process have a greater impact than those made later, design educators must integrate tools of analysis into what they teach. Students should utilize metrics as a valuable feedback tool throughout the process, rather than solely a number to target at the end of a project.

Mindsets

Benchmarks

Keeping it real

Because sustainability measurements only have meaning when comparing particular products, services, artifacts against comparable others at a certain time, benchmarking is crucial for gauging success or failure, and for establishing priorities for problem-solving.

Holistic, rather than incremental thinking

Investigate upstream and downstream. If a project uses materials that have a lower negative impact than most, but the transportation costs to import the materials have a high CO2 impact, then the higher priority would be to reduce the CO2 footprint. Similarly, students should not assume that a material sourced from a greater geographical distance is necessarily negative. This is an area of investigation, not a hard and fast set of rules.



How can we measure success?

Aftetr shock

Measurements that push "beyond today" thinking

Aim not just to minimize negative impact, but instead to create positive outcomes. Less bad is not enough. By measuring a project's ability to create positive ripples throughout the rest of the system, students can find inspiration for nuanced and innovative design.

Measuring is creative

Measuring can offer design opportunities

Measuring quantitative and qualitative data can lead to design explorations in data visualizations, interactive, and real-time measuring displays, and 3-dimensional objects that transform complex data into understandable narratives. Strive to present measurements with appropriate interfaces, design, or storytelling, in an appropriate context and at an appropriate time.

Interdisciplinary Forays

Ask not what your discipline can do for you.

Require students to take classes that expose them to other disciplines, the outside community, perhaps even companies and/or other educational institutions that represent different expertise. The goal is not for the student to master the other discipline's material (as a practitioner of that discipline would). Instead, evaluate these interdisciplinary forays by observing how the student applies that discipline's knowledge to their own design work in their core classes, and shares that information and insight within their community.

On October 23 and 24, 2009, the Designers Accord convened 100 progressive individuals from academic and professional institutions all over the world, for two days of highly participatory discussion, planning, and action around the topic of design education and sustainability.

While the group was predominantly U.S.-based, there were representatives from the UK, Sweden, Mexico, Columbia, Canada, Germany, Netherlands, and Australia.

This group of thought-leaders, design educators, and experts discussed, challenged, and conceived of a new path for undergraduate and graduate design programs to integrate sustainability.

We tackled topics ranging from creating curricula and writing grants, to communicating to trustees and motivating students. These topics were culled from pre-Summit meetings and brainstorm sessions, and were refined as specific questions that a group could tackle together in this workshop format.

The main activity during the Summit was small-group brainstorming focused around the topics. In addition, we had eight guest speakers sharing their perspectives how designers can influence and impact social and environmental issues. We also built in time to socialize and network, and held an open exhibition to share projects and perspectives.

The workshop consisted of a highly choreographed series of small group brainstorm sessions focused on the eight prevailing topics of interest to this community.

What is our common language?

Create a shared definition of terms / best ways to communicate about sustainability

How can we communicate best?

Best practices for communicating with and aligning stakeholders within your department and school

Designing the core sustainability curriculum

Understanding the landscape and drawing out the best

Transitioning legacy department curricula

Methods for initiating new programs, courses around sustainability

What constitutes a meaningful design challenge?

Structuring and enabling the ideal student projects and assignments

Connecting the theory with action

Methods for better effectiveness in the classroom, and ultimately in design practice

Measurements of success

Marking progress, maintain momentum, setting up appropriate goals

What's next?

Creating a shared point of view about the future of design education, in the context of how design is used to solve broader challenges, in different kinds of collaborations

The 100 attendees were distributed into 8 different groups on each day for the workshop portion of the programming. Four sessions were held on each of the days. The groups were balanced by considering a number of factors, including: discipline, type of design program, undergraduate/graduate, professional/ activist/student, region, country, teaching experience.

Each person had the chance to work on each topic, from a different perspective. This relay model used multiple "lenses" to structure each brainstorm session. The function of the lens was to articulate the specific goal of each brainstorm session, and create a boundary around it so that the session would be more productive.

Each breakout session used one lens, and each session built on the output of the previous one. At the start of each session, the group facilitator and note taker would provide a 2-3 minute summary of the point of view built in the previous session. At the end of each session, the group as a whole would decide on 2-4 point summary of their work to be passed onto the next group. This framework was designed to iteratively develop a tangible and actionable output-summarizing real-time.

The Lenses were used in this order, and were designed to mimic the convergent and divergent pattern of a design process.



On each person's Summit name badge, his or her group assignments were listed.

ALLAN CHOCHINOV

CORE77 / SCHOOL OF VISUAL ARTS / THE DESIGNERS ACCORD

Friday: Group 7 Saturday: Group 15

Each person received a matrix for each day that mapped groups to certain topics at different times.

Topic 1	Topic 2	Topic 3	Topic 4	Topic 5	Topic 6	Topic 7	Topic 8	_
G1	G2	G3	G4	G5	G6	G7	G8	Lens 1.
G4	G1	G2	G3	G8	G5	G6	G7	Lens 2
G3	G4	G1	G2	G7	G8	G5	G6	Lens 3
G2	G3	G4	G1	G6	G7	G8	G5	Lens 4

While groups moved to different topics in different orders, the lenses remained consistent and linear. In other words, each group used the same lens to work through a different topic each rotation.

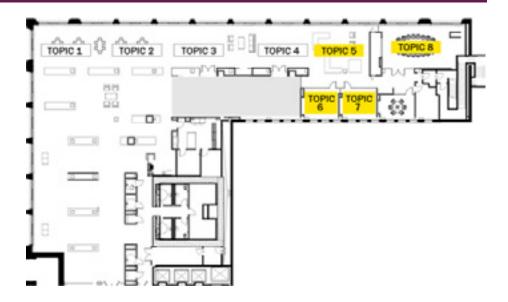
ALLAN CHOCHINOV

CORE77 / SCHOOL OF VISUAL ARTS / THE DESIGNERS ACCORD

Friday: Group 7 Saturday: Group 15

_	Topic 8	Topic 7	Topic 6	Topic 5	Topic 4	Topic 3	Topic 2	Topic 1
Lens 1	G8	G7	G6	G5	G4	G3	G2	G1
Lens 2	G7	G6	G5	G8	G3	G2	G1	G4
Lens 3	G6	G5	G8	G7	G2	G1	G4	G3
Lens 4	G5	G8	G7	G6	G1	G4	G3	G2

Each Topic was mapped to a consistent physical location within the Autodesk Gallery. All notes, illustrations, post-its remained in the space and were built upon over the course of the 2-day workshop.



At the conclusion of the Summit, each group facilitator and note taker reviewed their accumulated notes, and edited them into 5-10 page summaries.

Those summaries were synthesized into a common format, clarified and further developed, and reviewed by a small editorial team. This website represents the collective perspective of those in attendance at the Summit.