

- Minutes -
Engineering College Council Meeting
October 25-26, 2018
Cornell Ithaca Campus

Members Present: Nadine Aubry, John Balen, Najib Canaan, Lance Collins, Frank DeCosta, Erin Fischell, Rana Glasgal, Kent Goklen, Ken Goldman, Andrea Ippolito, Kevin Johnson, Michele Kaliski, Bill LaFontaine, Jonathan Ludwig, Ivan Lustig, Jim McCormick, Howard Morgan, David Perez, Sam Ramos, Susie Riley, Beckie Robertson, Tony Satterthwaite, Dmitri Shklovsky, Dan Simpkins, Elissa Sterry, Molly Tschang, Andy Verhalen, Lisa Walker, Craig Wheeler, Eric Young.

Emeriti Present: Dick Aubrecht, Jay Carter, Bob Cowie, Sarah Fischell, Bob Shaw

The meeting presentations and materials can be found at:

<https://confluence.cornell.edu/display/ECC/2018+Fall+ECC+Meeting>

Welcome and Introductions

Elissa Sterry, ECC Vice-Chair, welcomed the Council to the Fall '18 ECC Meeting. She announced that this would be Greg Galvin's last meeting as chair and thanked him for his outstanding leadership. She also announced that the focus of the meeting would be marketing and communications in the College, and ECC task force reporting. She noted that at the end of the meeting there would be an executive session to discuss a marketing strategy and to have a pulse check on the task forces which she would then report back to Lance Collins. Elissa also welcomed four new members to the Council: Erin Fischell, (Cornell B.S. '10 ME) Woods Hole Institution; Samuel Ramos (Cornell B.S. '82 EE) Global Atlantic Financial Group Limited; Beckie Robertson (Cornell B.S. '82 ChE) Versant Ventures; and Dmitri Shklovsky (Cornell B.S. '98, M.Eng. '02 ORIE/CS) Atreaus Capital, LLC.

Highlights from the College/Communications Review

Lance Collins, Joseph Silbert Dean of Engineering

Lance Collins welcomed the Council and indicated that as a follow up to the Fall '18 ECC meeting he had decided to devote the morning session to a broader and more in depth conversation around the College's marketing strategy. He also asked for the Council's continued assistance and support. He announced that our consultants, Alan Siegel and his team at RDW, would discuss marketing and social networking.

Lance gave an overview of the College's strategic plan and enabling goals towards making the College great, and described the 4 thrust areas:

“Aspiration

The College of Engineering at Cornell University will be widely recognized as a top three engineering college in undergraduate and graduate studies.

Enabling Goals:

1. To recruit, retain and enable a **diverse** community of exceptional faculty, students and staff
2. To educate undergraduate and graduate students to become global **leaders**
3. To be world leaders in important areas of research
 - a. to sustain and expand our leadership role in: **advanced materials; complex systems, network science and computation**
 - b. to be the premier research university in the emerging areas of: **bioengineering; energy and the environment**
4. To increase our interactions with industry; and create a fertile environment for **entrepreneurial activities** for faculty and students”.

Lance also discussed the four differentiators that make Cornell different from other universities:

1. Creating a New Educational Paradigm (we’re changing the way engineers are being educated at the highest levels, i.e. through experiential activities).
2. Leveraging Cornell Tech Campus (we’re building a campus from scratch, focused on entrepreneurship which is a once in a lifetime activity, and which makes us distinctive and special).
3. Expanding Bioengineering (we get to take advantage of things such as our Medical College, and Vet School).
4. Enhancing the Energy Systems Institute (Energy is a major thrust area in a multitude of places. We’re unusual in that we use our campus as a laboratory and can think about large-scale projects and their implementation. This makes us distinctive).

Lance revisited the “breaking the rules” platform, which was initiated in 2014, and emphasized that it’s time to refresh our brand. He indicated that we need to focus on new audiences (alumni, corporations), and continue to grow the social media. He added that before we can do any marketing, we need to think about our message. The message needs to be merged in a natural way from the strategic plan. Marketing is also about authenticity. He described the lessons learned from the Cornell Tech experience. He explained that when Mayor Bloomberg made the announcement that New York City would provide land to a university to build a new campus focused on entrepreneurship, our bid to win the Cornell Tech proposal was the first time he heard about branding at Cornell. He added that Cornell produces entrepreneurs and startup companies at exactly the same rate as Stanford and MIT. However, we weren’t aware of it because our startups are not physically co-located with our institution. He noted that after this bruising, year-long battle, you would think that we would have the home court advantage, since we were playing in the State of New York field and we’re the land grant institution for New York. In some sense, we should have been way out in front, but we weren’t, and that was when learned about the importance of the brand and the importance of the image that comes to mind when people hear the words “Cornell Engineering”. Therefore, we sought the help of

Alan Siegel, ORIE '60, one of the leading people in marketing, to think about how we could strengthen the Cornell Engineering brand. Alan quickly told us that we had to be authentic, bold, and determine our audiences. So, we targeted students and then secondarily looked at groups, such as alumni, donors and recruiters. He explained that, "What did I learn at Cornell Engineering?", became our platform. An alumnus indicated that "I learned to break the rules", and that was something that we thought could be differentiating factor because it had a punchy and non-conventional feel to it. Breaking the rules means doing great things, making the world a better place, advancing science and improving lives. However, it's difficult to know if the slogan is working. Since branding in the College began in 2014, applications rose from 8,000 to over 13,000, in that period. Most importantly, our yield of admitted students who decided to come to Cornell increased from under half of our admitted students deciding to come Cornell, to almost two-thirds, which Lance felt was compelling. In their admissions essays, several students referred to breaking the rules. There was a sense that this branding campaign was making a difference. There were lots of things that come together. He added that we have the best admissions officer in the country, Scott Campbell, as well as an amazing admissions team. However, they're not just doing admissions. They're also doing recruiting and building pipelines. We also have incredible support for those students once they arrive on campus through diversity programs in engineering. Lance played a new video that showed that for the first time that the college will be made up of 50% women. This video will be used for the first time to yield female students then it'll be rolled out for admissions and social media. It's a benefit that we'll continue to reap over time. He also pointed out that we're well ahead of the national average, with respect to the percent of URM's matriculated. We started at 13-14% for the Class of 2014 to 21% for the Class of 2022, and the percentage of African-American students has risen from 3% to 9%, which again is all about pipelines and understanding at which high schools we should recruit.

Lance also expressed his concern with the US News Graduate Engineering Programs rankings which went from 10 in 2011 to 15 in 2019. Lance would like for the College to rise to number 3 in the rankings. He pointed out that one of our challenges with the rankings is the amount of our research expenditures which have dropped considerably. He added that we do extremely well with NSF funding. However, we need to increase our large center grants and industry (marketing) efforts.

Comments:

- *If you increase your research expenditures, it will also increase our global rankings.*
- *Industry sponsored research is very low compared to other universities.*
- *Ease of doing business needs to be improved. Intellectual property policies need to improve, it's a difficult problem.*
- *We need to leverage now to get research dollars.*

Remarks from Siegelvision

Alan Siegel, CEO, Siegelvision

Jacob Lepiarz, Senior Account Manager/Strategist, Siegelvision

Alan Siegel gave a presentation on, “Elevating Cornell Engineering’s Position in the Marketplace”. He indicated that the mission of his firm is to help organizations define who they are, what they do, and what’s unique about them with a basic standard of measuring success around are we able to generate support behavior from their key audiences. Alan is an award-winning brand identity and communications consultant, and pioneer in simplifying complex communications for all kinds of organizations around the world. In everything he does, clarity plays a key role. Brand Identity = Clarity of Identity (generating a program which is going to generate supportive behavior), Clarity of Expression (which is the voice, connecting with people), Clarity of Experience (if you don’t deliver on what you say you’re doing, then the program is not going to be successful). He uses all of these to build identity profiles. He added that it is critical to know what is the marketplace, who are your competitors, what are they doing, and where are the opportunities for us to generate a different point of view.

Siegel explained that to build a coherent brand voice, every organization needs to implement the following 10 brand voice lessons:

1. Define your identity
2. Overarching purpose
3. Inside-out approach
4. Authenticity
5. Expect the unexpected
6. Meaningful conversations
7. Sharpen your master narrative
8. Humanize, personalize and clarify
9. Leadership
10. We live in a voice-centered world.

Siegel indicated that their objectives were to assess the reputation and image of the College, to create a compelling and inspirational position, and develop an integrated marketing-communications program across all media, as well as define and leverage the College’s relationship with Cornell Tech. Siegelvision did interviews with the Dean, his staff, faculty, as well as conducted a communications audit of what the competition was doing, including looking at the admissions materials. They also had a good meeting with the Deans of six colleges at Cornell.

Alan outlined the brand pillars that describe what makes Cornell Engineering unique:

1. Collaborative style / interdisciplinary approach.
2. Rich, diverse experience of being part of a great university.
3. Commitment to do good (Cornell is a land grant institution. A lot of people need solutions sooner rather than later.)
4. Freedom (you’re allowed to do what you want and to follow your passions).

5. Cornell Tech

Siegel noted that breaking the rules means breaking down the barriers between traditional disciplines to generate a new perspective, produce leaders to stand apart, and intellectually prepare to solve problems by using new models of explanation, encouraging students to think for themselves and striking out along whatever path they choose. So if we're breaking the rules in engineering, research, and science, let's break them in communication. Also, in terms of the voice, he recommended that initially it should be personal, that is, confident, creative, expressive, surprising, intellectually rebellious, and playful. Siegel noted that in his book, *Voice Lessons*, he learned how to take the voice and translate these terms into something meaningful. They also created the book, *Rules for Breaking the Rules*. He added we have to go to the next level and put training programs in place to launch this platform.

Marketing and Communications Update

Dawn McWilliams, Director, Marketing and Communications

Dawn McWilliams gave a presentation on "Marketing and Communications Implementation, Breaking the Rules". She indicated that most branding plans fail when people do not actually implement and make them a part of the culture. Although the College has more work to do in that area, we've also made great strides. Part of the implementation was changing the way that we present our materials to alumni. Therefore, we created the *Cornell Engineering Magazine*. She added that we needed to make the stories look and sound like they were part of the breaking the rules experience, so we have changed how we produce and write them, to ensure that we have a consistent message, consistent look, and consistent brand stories throughout the magazine. She pointed out that we've also worked to ensure that our website which, as Alan mentioned, is one of the key places where students find us and others, to make sure that our breaking the rules platform is there as well. She indicated that her communications team has written 120 breaking the rules stories about faculty, staff, students, and alumni, across all of the engineering departments. The website includes personal stories and videos, as well as all of the rules for "breaking the rules". The website also includes the Cornell Engineering logo downloads, stories, and the guidelines regarding the use of colors, etc., for people to share, as well as a brand ambassador kit. She pointed out that the alumni are our best way of sharing our stories. There are almost 50,000 alumni who could help share the brand story, and the kit is available just for the asking. The idea of the kit is to share the breaking the rules stories they've experienced at Cornell.

Dawn shared some measurements of our success with our branding efforts. She noted that we have been looking at The Harris Poll every year in October, which is a very broad based 18-65 age-range survey to see how Cornell fairs in the opinion of the general population. This is a tough survey to move because it includes a broad audience who are not necessarily educated about engineering schools, etc. Nonetheless, we improved significantly in that poll. From 2013 where we asked, "What is the overall quality of Cornell Engineering", in their minds among the top 20 universities, we were in the top 5, that is 31% in 2013, and 35% in 2017. The number of

people who consider us to be conventional has decreased and the number of Google searches regarding Cornell Engineering have increased. Alan also shared some of the Google search. In 2013, there were about 15 million Google searches for Cornell Engineering and as of October 2018, that increased to about 71 million. That's a 373% increase in the amount of times that Cornell Engineering has been seen in Google search.

Dawn explained that breaking the rules has also had an impact on admissions. We've determined 20% of that is attributed to the breaking the rules. That means that in their written statements, students are actually stating breaking the rules comments, such as: "Cornell Engineering seems to encourage this rule breaking behavior, and as a result, I believe Cornell Engineering will help me fulfill my destiny." Their risk taking and norm breaking environment at Cornell Engineering is exactly what I need to learn from." Dawn also discussed the communications survey that was launched recently in which several ECC members participated. The goal was to find out how alumni get their information about the College, and how they want to be involved and engaged through news and information related to Cornell Engineering, such as lectures and webinars on interesting topics; in person networking opportunities, opportunities to be a mentor or to be mentored, as well as opportunities to engage with current students, and volunteer opportunities. She noted that we've also learned very importantly that everybody likes Cornell Engineering news and information. The top three ways that alumni are getting their information are from the website, the magazine, and emails that we send. Our alumni over 35, and it was a small sampling, are not using social media. However, she noted that they learned that lectures and webinars were extremely popular and were an ideal outreach.

Dawn concluded by saying that in her own experience the most important questions are "why", "what", and then "how". So breaking the rules, oddly enough, is the least important question. The biggest question is "why". Why are we Cornell Engineering? Why do we do the things we do?

Remarks from RDW Group

Chris DiSano, Vice President – Client Services Innovation, RDW

Sarah Johnson, Director of Digital Marketing Services, RDW

Chris DiSano discussed their company, RDW Group, which is engaged primarily in social media projects, and focuses on perspective students, parents, current students. RDW Group is made up of three different entities whose headquarters are based in Providence, Rhode Island. Their services include integrated marketing, communications campaigns, as well as enrollment marketing. He noted that they helped to enroll the first class of students at Cornell Tech. Chris pointed out that they've also worked with ILR launching their online master's program. Their company also does a large volume of qualitative research from the brand development perspective. He noted that over the last five to six years, content has been king. However, while content is still king, data is a rival to content, and also understanding how to draw the appropriate insights from that data. Data is great, but if you don't know how to extract what you need to, in terms of it being actionable and push you forward, then it's

just data.

Sarah Johnson, Director of Digital Marketing Services, RDW, shared some of her company's successes with taking a brand and bringing that storytelling into the social sphere. She indicated that they are using social media, such as LinkedIn and Facebook, as well as other media to tell a story about all the great research and activities that are happening on campus. Social media is an incredible opportunity. The use of videos is also incredibly compelling. Videos draw people in and is very effective way to get different messages across very clearly. Two-way interactions are also important. They provide the ability to have a message out there that someone can comment on. Social sharing, word-of-mouth, is also incredibly impactful. It also provides the ability for someone to take that information and share it with their network. Using social media is a way of amplifying our brand. The primary audiences include prospective students, current students, and families of Cornell Engineering. Secondary audiences include alumni, engineering industry, faculty and staff. Sarah added that we know how important word-of-mouth has also been for businesses of all kinds, so it's wonderful that social media is a modern version of this. With social media, we're able to be very responsive with our messaging, and that's important. The platforms they're using actively right now are: Facebook, Twitter, LinkedIn, and YouTube. So, being able to stay on top of the conversation in the industry, even other schools, and not only engaging with universities such as MIT and Stanford, but also some of those that are not our competitors, ensuring that we're looking at the industry and our role in it as collaborative. Instead of just focusing on ourselves, we're compelled by what's happening in the industry at large, and we want to make sure that we're involved in that conversation. In 2015 when the RDW Group became involved with the College, our total followers from all of our platforms was around 11,000. And now, just a few years later, that number has tripled to about 33,000 and continues to grow. What's exciting is that we haven't spent a lot of money to grow that. Sarah explained that paid social media enables us to create our message in a targeted fashion. This can be done on Facebook, LinkedIn, or other platforms, where they can take an article, a video, or a photo, and target it to show to followers with little media support. So, similar to how you place an ad in a magazine, they can now target people by specific industries, interests, educational backgrounds, geographies, and age groups. For example, in LinkedIn, they can target Cornell engineering alumni specifically, and the message will only go to them. Perspective students can be targeted in places such as Snapchat. If the College has events, they can target a filter that brings them into that breaking the rules brand. Sarah added that they want to increase the number of followers. She noted that in the long run, this upfront investment will help bolster any organic or unpaid strategy in the future. Currently, the College has an 11% engagement rate, with two hundred plus new followers every month and over 45,000 engagements monthly. These are people who stop to interact with us, with our brand, comment on things, learn a little bit, click through to an article, and that's all organic. None of this is a paid effort, which is great.

Sharon also remarked that recently they came up with stories to tell. Stories are just a different version of a post on Instagram, and it's been amazing to see how our followers have reacted to it.

Annually, we're getting about 150,000 engagements, and that's about 50% since they started. About 4.5 million impressions a year, and again those are organic impressions, and then we're growing about 7,000 followers each year. There's definitely room for growth, but they're excited for the opportunity to keep chipping away at that, and use these platforms to help continue to lift up the brand and the spirit of Cornell.

Communications Discussion with Alan Siegel and RDW

Alan Siegel engaged the council in a discussion regarding communications in the College. His recommendations included: refreshing and updating the breaking the rules platform; identifying stories we can use to amplify our bold positioning; developing social media and compelling digital content to tell our story. He also recommended extending the brand to the private industry sector that collaborates with the College, and most importantly that provide research funding. Siegel explained that we need to take the terrific story of our wonderful College and begin to interact with the corporate world in a powerful way to achieve these objectives. One suggestion was to have regular informational webinars, or podcasts for these organizations. They also plan to look at our alumni engagement, as well as and what other marketing communications programs his company can use to move the institution forward.

Siegel asked for the Council's feedback on the breaking the rules platform and to brainstorm on ways to improve this platform. He noted that breaking the rules is a younger, edgier way of saying we're producing people that make a difference, that have impact, that change things even when there is adversity.

Siegel added that we want the vision to drive the slogan as opposed to the slogan driving the vision. He noted that one of the things that he heard repeatedly was that what drove Cornell's win over Stanford in Cornell Tech bid was the fact that "you guys" as a reporter said, "are just different". Cornell acts as a team. Siegel pointed out that one of the things that he's observed from Cornell Engineers and the ones that he's hired and worked with is this collaborative spirit are, in fact, a team, that is modest, and understated. And it's really not about us, it's not about I, it's about we.

Breaking the rules is not a just slogan, it's also a good way of capturing our culture. However, work still needs to be done to better articulate the purpose around our culture and our image. He added that we don't use breaking the rules within the Twitter or Instagram feeds. Instead, those words should be used in capturing what is happening, so that the message is being reinforced constantly.

Comments:

- *Is there an elevator pitch that we can use when we're talking to people and they ask about Cornell? What is the three, four or five-sentence pitch that gives our audiences information, while also making an emotional connection with them?*

- *As we think about breaking the rules, are we thinking about what our facilities are saying? When people walk into Phillips Hall or walk into the Hollister Hall, do they get the impression of breaking the rules?*
- *I totally agree with you in terms of picking a theme and then reinforcing that because I think that's how people will start to gravitate. Ultimately, what matters is performance. Entrepreneurship actually is breaking the rules. Invent something, create something. Here's the data to show that we're actually doing it.*
- *We need to do a much better job in staying engaged with these graduates as they go through their careers.*
- *One thing that's missing for me is in the messaging about how tough students are that come from here. There's a toughness of having dealt with the harsh weather. When you go through a Cornell education, particularly in the engineering school, I mean we wear it proudly and it's a badge of honor. There's this fight and toughness about us that is something that we all become proud of as we go through this process, and it is what creates great entrepreneurs and great innovators. And this toughness and resilience is something that I think we need to weave into the messaging associated with all this because when students are looking at schools they want to understand what distinguishes Cornell from all the other schools that are in the top 15. Toughness is something to be proud of.*
- *Last night we saw some wonderful entrepreneurship projects. Where is that message in what we are trying to tell the world here? Very multidisciplinary. Where is that message? Partnership with industry for internships and co-ops. There is a wonderful opportunity to do something with Cornell Tech.*
- *Can we leverage that and perhaps send our students from engineering, a semester in New York City to study entrepreneurship or engineering and business or something like this. So there's an opportunity there that would break the rules but perhaps we can do a little bit more in that direction.*
- *So I didn't mean earlier to say that I don't like the slogan breaking the rules. I just felt that it was incomplete. While breaking the rules is a good slogan as to how we do things, we should establish why we do things and the big problems that we're working on and why we are on the cutting edge. Ithaca was one of the first fully lit places in the country. So, the campus was a living campus of engineering advances. That could be a story we could start featuring as why people should come to Cornell. Why we are different than other places.*
- *It's a community that can be insulated and isolated, and that creates its own ecosystem.*

- *At the end of the day, it's really not a slogan. It's a brand positioning. It's how we operate internally. My comment is very broad. I'm an engineer but I'm also a marketer, and marketing has a science to it just like engineering. You start with what drives a brand and we went through a lot of slides today but we didn't say what drives the brand in higher education, and there are components that do it, and part of it is the surveys that are out there and the one that everybody reads is the U.S. News survey not the Harris Poll. The one that is the gold standard is U.S. News. What drives the standings in the U.S. News? Is it research ranking? Is it acceptance rates? What is it? And if we want to increase our brand, we have to start with what the brand drivers are and disintegrate those just like we do an engineering problem, and then we have to put together a strategy to address the ones that we think are the most critical. So unless we put some science behind the science of marketing, I'm not sure that we're going to get the brand elevation that we all want.*

Siegel replied that we can improve the program by tying breaking the rules to a purpose statement. We need an overriding sentence, or elevator pitch, to give breaking the rules a purpose, which his company plans to do. He added that they want people to feel like they belong here and they're a part of this community. It's more of a lifestyle. There's a focus on experiential learning and on research, and there's a natural tie there to breaking the rules. However, Alan added that at least for the undergraduate student audience the choice of Cornell versus something else is in large about experiential learning and research, as well as about the classroom experience and community.

Siegel emphasized that we need an overriding umbrella identity. Then we need to create customized messages for the individual audiences. By repeating the same message over and over, they will eventually hear it. He added that we should think about creating a few major goals for engineering that we can announce and continuously let our audiences know how we're doing. The beauty of the competitions and many of these student projects is that they bring people in from different disciplines not just engineering. These kind of global goals get people excited, and committed, and directed toward something of common interest.

Jacob Lepiarz, Senior Account Manager/Strategist, Siegelvision, discussed his role in the college's branding efforts. He added that we don't have the resources to reach every audience, so we need to determine what are focus will be moving forward, as well as how we are going to dedicate those resources, and then put metrics in place to measure these efforts. He added that as Lance referenced before, if you look at U. S. News and World Report, one of the big metrics and where we're having a challenge is with research funding. There needs to be an agreement about what are the important measures we're going to put in place, and then dedicated resources to move those numbers, as well as putting a very precise measurement framework in place for benchmarking before we move forward. He also emphasized that metrics are a high priority.

Siegel commented that there's an account on Twitter called Real Scientists where you get a week's worth of tweets from a different scientist every week. This is an example of a newer,

more off the cuff version of social media that's becoming more popular. People don't want to hear from the big brand. They want to hear from the people behind it. So, by doing surveys, he added, we're able to better understand how people are reacting to us. For example, someone might come to the site based on our social media post, they end up reading an article written by the team, and then go from there to another section on the site, or perhaps fill out a form for more information. now we're able to email them from the emails they open and learn more about what they're interested in, and then create more content based on that. We have people reach out to them, and we know if they're a prospect or an alumnus.

Siegel reiterated the importance of stating a purpose or having an umbrella statement for breaking the rules. Secondly, he noted that this will be a great opportunity to activate the faculty, students, and alumni to take the storytelling that goes along with breaking the rules and make it powerful, exciting, and giving us success stories. We need dramatic statements on how breaking the rules has made a difference in their lives. Alan pointed out that they have just affiliated with an organization with two journalists; one who worked with Anderson Cooper, and one who worked with Diane Sawyer, that specializes in helping the leadership of the organization, as well as throughout the organization, learn to articulate their messages and tell their story. He added that doing this experiment by bringing these people in will be tremendously successful and will activate the organization.

Communications Discussion with Alan Siegel and RDW

Alan Siegel and the RDW team had an open discussion with the Council regarding communications in the College. The following are some of the comments made during this discussion:

Comments

- *One of the concerns is we want the vision to drive the slogan. This collaborative spirit is not about us but about we.*
- *Breaking the rules is working, but we're way behind in the social arena. The next generation is using Snapchat, not twitter.* Sarah Johnson responded that she's also received that feedback and will use Snapchat more often and will continue to find innovative ways to incorporate feedback through outreach, as well as better coordinating their efforts internally.
- *Their company has an elevator pitch. Everyone at the company is expected to know that elevator pitch. Is there an elevator pitch that the Council can use?*
- *Our purpose needs to be better defined.* Siegel responded that the purpose of our organization is to find superior people and tie it to a purpose. He added that we can improve the slogan by tying it to a purpose. We need customized messages for our different audiences. Something short that ties breaking the rules to an overriding

purpose.

- *Instead of a purpose, perhaps we should tie it to an outcome.*
- *For example, tying the purpose to experiential learning, research and classroom community. That could be integrated into the message.*
- *We need to repeat the message over and over to ingrain the message. We need to find a way to measure if all of these messages we are sending are sticking. The student project teams are the single message that sticks out for most of our UG's and competing. We should create a few goals and announce them, i.e., Carbon Free by 2035, the Solar House, etc., and global goals that get people interested and engaged.*
- *We need to find a theme and reinforce it. Ultimately people care about performance. Maybe we need to highlight our performance with data. Sarah responded that we need to toot our horn more often and highlight our successes. Siegel added that they would like to take this to the next level. An umbrella statement to go with breaking the rules. How to activate the students, faculty and alumni, telling the story and making it powerful. We need dramatic statements for how breaking the rules had made a difference. Siegel also added that we're bigger than the rankings. If we want to improve our rankings, we need to meet with US News officials and let them know that some of the information provided by other universities is not accurate.*
- *What is the US News ranking system based on? We should have our own metrics and excel in them by breaking the rules.*
- *What drives the brand in higher education? The US News Survey is the gold standard. If we want to increase our standing, we need to put in place a strategy to do so. Lance responded that he has mixed feelings about this. He added that the US News provides external validation. However, it's also important to realize that there are flaws in this system.*
- *Breaking the rules with weather. There's this bite and toughness about us that creates great entrepreneurs. This toughness distinguishes us from the other schools. We should be proud of this and turn this weakness into a strength.*
- *The millennials are looking for interdisciplinary education, collaborations with industry, Cornell Tech. Where are those messages?*
- *How can we increase our social presence in the next 3 years? What is our ceiling? Sarah responded that we need to get much more personalized, by creating niche accounts, i.e., Real Scientists. Better understand outcomes with surveys, then create content based on those outcomes.*

- *Cornell Engineering needs consistency. Need to standardize font and logo. Cornell is a high-cost place and we need to make the case for why it's worth the cost. AI should be noted on our website.* Dawn McWilliams responded that the logo is flexible and they've tried different platforms.
- *Cornell is inherently more collaborative than other universities, whereas at MIT you don't see that collaboration. Cornell does not want to become MIT. The student experience is much better here than anywhere else and its students that are more well rounded. This should be reflected in the message.*

Elissa Sterry summarized the big themes discussed at this meeting: better define the purpose, linking that to breaking the rules to make a more compelling statement and tying that to an elevator speech or something relatively short that we can carry around in our minds so that we can be ambassadors. She heard a theme about defining for ourselves our performance and our statistics. What are we going to measure, how are we going to measure it, how are we going to communicate that? She heard a theme about U.S. News and World Report. Do we want to influence the rankings, how are we going to influence them, and what are the metrics we're using? She indicated that she heard several examples about how we can showcase the things that really make Cornell unique, whether it's experiential learning, the toughness of character that we build, or whether it's the collaborative way in which we work.

Task Force Working Session Notes

Bioengineering Task Force

Attendees:

ECC members: Craig Wheeler, Andrea Ippolito, Beckie Robertson, Ivan Lustig, Susie Riley, Kent Goklen, Kevin Johnson

David Erickson (Assoc Dean)

AAD Staff: June Losurdo and Stephen Smith

Meeting Notes:

Note: action items are bold

Please note: Andrea had great slides in her PPT presentation reflecting all of this.

Craig Wheeler gave an overview of their summary recommendations for phase 2; and spoke of a set of pilot programs to bring strategic focus in two or three core areas and develop the tools for broader rollout.

Next step was to have a meeting with people from BEE, BME and CBE – Craig gave a recap of faculty working group session from October 25 (John March, James Antaki, Matt DeLisa, Claudia Fischbach)

As a starting point, they brainstormed around identifying strategic focus areas – identification of a metabolism system as a strategic focus area (CBE – Cell as a Factory; BEE non-medical biomaterials and food waste; BME – cancer biology and immune-engineering and microbiome)

Impact areas – food supply, waste reduction, health, environment, production

Strategy – stage one seed funding and formation of external network; stage 2 faculty funding and branding; stage 3 self-sustaining

Next steps – departments to discuss and then have a faculty meeting on November 8 with leaders of the task force.

Craig stated that pilot implementation might be difficult for task force since they need guidance; and task force members are not close by.

David Erickson added comments around large centers and big ideas and the faculty involvement in the college and incentives that may be provided by the college for faculty to work on this; responded to comments about our success with government funding but not as much industrial funding.

One person pointed out that national rankings take industry partnership into account, to the detriment of American universities. They discussed an organization headed by Kelvin Lee (formerly of Cornell), called NIIMBL, where industry partners buy in for \$1.5MM. Under this model, companies propose problems, and academics take them on. The group didn't seem to think this was the right model to follow for Cornell Bio Engineering.

Kevin Johnson shared his work with Emmanuel Giannelis and IP

Next steps:

Three individual faculty working meetings on November 8 to all 3 departments/schools – Craig to present with the faculty who attended the brainstorm. Andrea will not be here. Kent and Beckie said they may both be here and could be helpful. Andrea will hold time on all three department calendars.

After the faculty working meetings, this group will have a follow-up call to debrief.

How will task force work with the faculty on next steps?

Craig suggests that the April ECC presentation is done by a faculty and is regarding what bio engineering task force has decided to move forward on

Faculty brainstorm group asked if there would be a staff project manager – Craig shared that is probably not available and David is hopeful that a faculty leader will self-identify

Neurotech was brought up as an example /case study that could be replicated

Energy, Environment, and Sustainability Task Force

Note: recommendations/action items are bold/red.

Attendees:

Howard Morgan

Andy Verhalen

Jan Carter

Tony Satterthwaite

Elissa Sterry

Bob Shaw

Sarah Fischell

Bob Cowie

Shane Henderson

Lynden Archer

AAD Staff: Tony Simone

Jay Carter begins the session by identifying the three areas of focus for the task force, as determined in an August 2018 phone call with Lynden Archer.

1. Research and faculty – reported by Jay Carter
2. Curriculum – reported by Sarah Fischell
3. Report on Carbon Neutrality Goal by 2035 – reported by Bob Shaw

Section 1 of 3

- Jay approached R&F by looking at a baseline assessment of who on our faculty has an energy component in their research.
- Jay went through the entire faculty Pick and Shovel style on their websites to identify faculty who have energy in their research portfolios.
- Finding 130 faculty in this arena, he divides faculty into “energy source” and “non-energy source” categories, and provides charts with 130 faculty names with 73 being to energy source, and 57 with cross areas that are not by source.
- Jay notes that there is little excitement or collaboration among these researchers.
- Nowhere does it say “breaking the rules.”
- Jay benchmarked against MIT, Stanford and U of Michigan in terms of research.
- He also benchmarked against these schools in corporate partnerships, with the anecdotal evidence of Exxon Mobil trumpeting their partnerships with 10 institutions around biofuel, but not with Cornell.
- Alissa notes that there is something about Cornell’s positioning around IP that has made corporate partnerships a problem.

- Howard Morgan notes that we do technology protection, vs. technology transfer. Bob Shaw notes that we don't do tech transfer, but rather we do people transfer.
- Bob notes that he hears from Stanford and MIT regularly about the impact of their research around energy, and **they're distributing three press releases per month per researcher and we don't do that – and we should.**
- Sarah notes that there needs to be a drumbeat for messaging to land in the social media landscape, and they must be doing that at the other schools and we are not.
- Jay provides five charts in his slides.
- Charts 1-2, are questions and observations.
- What is our appetite to make energy truly a top priority? Some of the other questions would be answered if the answer to that question were answered.
- Plasma physics is an advantage for us with their facilities, but the faculty are all "extremely senior" faculty. If we don't pre-feed their coming vacancies we may lose this advantage.
- Jay spent an hour with Jeff Tester, and he could not get an answer to the question "what are the big research questions for earth source heat."
- The committee asks: What are the criteria Lance uses to identify top priorities, even within the area of energy? Is Lynden driving that? Without leadership on this, the department based research determines the direction of the college and there is a lack of alignment.
- Jay doesn't see any corporate or academic partnerships, in contrast to Michigan and MIT where they have hundreds of research faculty that are driven solely on grant cycles. So we end up with half of our faculty saying their involved in energy, but with little funding or marketable IP for it.
- Alissa notes that without a clear focus there is little alignment – even if there is a lot of initiative.
- One **recommendation is to put something together to satisfy the provost's plea for radical collaboration. What about combining CHESS, A&S and Eng in response to the provosts' call?**
- Alissa asks, was there another University that catches our eye to partner with to overtake MIT in tandem? **Michigan is a reasonable candidate for partnership.** Jay met the AD of research through an introduction from Martha Pollack. Michigan is already talking about what Cornell is doing in terms of carbon neutrality on their website.
- Jay's one big takeaway is to create a CTech type campus on campus in Ithaca that focuses on sustainability.
- Without some significant change in the way we operate we are destined for more of the same.
- Sarah likes Jay's recommendations page, except it does not address the deployment challenges that don't have to do with technology. There is a systems engineering angle that we need to consider. Sarah's top line thinking is to make sure we make the contributions that we can to position the research so we are pushing forward on all fronts.

- Alissa asks, what is the thing we can uniquely go after to solve a big problem in the world. We will never be able to throw enough money so **we need to pick our areas.**
- Bob notes that individual professors decide their direction and choose their funding, so they're like a little corporation, and with that structure there is no coordination necessary for success. And that's true everywhere, but somehow leadership can help with this collaboration.
- Jay would like to have a partner at the table to join him in this work.

Section 2 of 3

- Sarah leads the conversation based on her work looking at the curriculum.
- Sarah believes **we should look at energy and climate solutions, or energy and carbon neutrality, not just "energy" in its own right.**
- Lynden asked her "are we doing enough to inspire students to thrive in energy solutions field?"
- Sarah approached this by asking how we figure out if we have most of the bases covered academically when we talk about energy and climate solutions. She applied Draw Down, which is a project with a solutions oriented framework to decarbonization that looks at existing solutions and how they can be deployed to get us to a specific measurable goal (<https://www.drawdown.org>). The solutions are rank ordered by impact over 30 years. They have these divided by seven categories, and the top is food. Then electricity, then land use, then women and girls (population), materials (mostly recycling around refrigerants), buildings and cities, transportation and finally a separate over-arching category on carbon dioxide removal.
- Sarah started from this point of view because how else can we determine if our curriculum and research prepares students for these things? Her assessment is that the seven focus areas are addressed constructively within our curriculum.
- Course offering seem fairly strong relevant to the solutions that exist in the next generation, and there are existing policy analysis courses that are available, although sparsely utilized or recommended.
- **Are there emerging technologies that are ready to move from teams and into coursework and research?**
- Sarah notes that our minors and specializations in energy/sustainability are strong, and specific to departments. And there are a few MEng as well, including ChemE, ECE, BME, Systems. But how many students are doing this?
- We have some strengths in this area because of the opportunity to **partner with policy programs in HumEc and ILR, as well as the Ag School.** Alissa asks if there is any resource in Law?
- Andy notes that Professor Mahowald is taking the lead on carbon reduction on campus, and he met with her yesterday. She's also working with some outside organizations that may help with funding or resources of some type.
- Regarding undergrads, Sarah remarks that there are very active student groups (ESW, EWB, AguaClara, Transport) in this arena. How many people do we have working on

combustion engines vs. fuel cells? Of course the main point of the teams is to collaborate, but it is also to learn the implications of what their working on.

- Lynden Archer joins at 1:00 p.m.
- Sarah asks how many students do we have doing work in sustainability, especially in undergraduate entrepreneurship.
- Other engineering schools have some awards for student work in the carbon neutrality space – **should we set up something similar?**
- Finally, Sarah would like a partner in doing this work on the task force.

Section 3 of 3

- Bob Shaw talks about the report of how to achieve carbon neutrality by 2035.
- Bob includes a document about ESI and BHAG – the most important piece that needs to happen is addressing the hydrogen economy. Bob thinks about electrons in the wire and protons in the pipe. There are multi-billion dollar programs in hydrogen cars. California is subsidizing building fill stations. Bob notes that the Cornell report says nothing about Hydrogen, and there is need for progress. Alissa notes there is a timeframe issue on this.
- Geoff Coates and Héctor D. Abruña are advisors to a company that is working on membranes that will reduce the cost of hydrogen production by 40%.
- Lynden notes that he told Lance that the group that built this Carbon Neutrality report should come talk to ECC.
- Bob notes that there is a flawed assumption that whatever we do needs to be funded by philanthropy. The reason is twofold, first there is a reason to do it without philanthropy, and if you do that it will more than pay the interest on itself. Apply regular economics on the initiatives you can fund with non-philanthropy dollars, and put the philanthropy money where you need it.
- An example: In 08 the university borrowed \$2B with the endowment as leverage. We might consider taking one of the important goals in this report, which is to **bring the university to the fully renewable electric system**. There are all kinds of ways to accomplish this, and Bob's proposal is **we should help the university develop a business plan to do it**. Bob offers to help the university team of staff to do this. And we need to begin by collecting data (load, seasonal, etc.). Alissa agrees that we should use our business acumen to do this by advising an existing structure. Bob believes that in the past advisory groups have been somewhat dismissed, regardless of the validity of their recommendations. Bob offers to be the officer in charge, and work with our staff to drive it. Jay asks, who on the board of trustees can we work with to get the impact we need?
- Bob believes the renewable electric is doable. This is the living laboratory! And it's in the report as an objective. And we can help.
- **Lynden suggests that we take these findings to the Carbon Neutral group, and ultimately to have an ECC task force function as a consulting agency with the group.**

Education Task Force Meeting Notes

Attendees: Nadine Aubry, Rana Glasgal, Dan Simpkins, Molly Tschang, Erin Fischell, Eric Young,

Frank DeCosta

Absent: Bill Shreve, Aref Lahham

- Initial discussion was about marketing and communications while folks drifted in with their lunches. Erin Fischell mentioned that young alumni think “Breaking the Rules” tries a little too hard, but that her group was probably not the target audience, and that it might be very appropriate for prospective high school students. Molly mentioned that she personally does not care for “Breaking the Rules” but that is beside the point; rather, what matters is whether we can validate that the marketing is working. Other comments echoed the idea that we must articulate the target audience and then measure impact.
- There was discussion about whether to continue as a task force. Dan reminded the group of the two areas of focus: experiential learning and educational initiatives. Returning members indicated ongoing interest in these and two new members, Erin Fischell and Dmitri Shklovsky, are also onboard.
- Random conversational details:
 - Look at statistics of project team alumni hiring project team students
 - AAD is not engaging young alumni – can we use project teams as a social media or podcast opportunity for engagement?
 - Importance of soft skills came up over and over. Eric and Dan both said the single most important course they took at Cornell was public speaking.
 - There was extremely high praise for Kathy Dimiduk’s work. Jim McCormick can’t talk enough about her.
 - Cornell Council approved use of CU ELinks for Engineering to reach out to alumni. Dan wants to use this to connect alumni to students for the portfolio project pilot (which he called a variant of SAIL at Northeastern)
 - Dan indicated that the recommendations made on educational initiatives last spring were not yet being implemented.
 - Repeated discussion about getting data on investment and impact of the programs in last spring’s inventory.
 - Discussion about visibility of educational and experiential programs
- Moving forward the task force sees itself providing value added by:
 - Looking at metrics and considering what recommendations might flow from them about where COE puts its resources. The example Dan sighted was whether we should sunset co-op and put more energy into project teams.
 - Keeping education of students as a top priority for COE and providing guidance and support on this topic.

Capital Infrastructure Task Force Meeting Notes

Presentation by Ken Goldman and Lisa Walker

- **Campaign Kick-Off- June 2018**
 - 3 events hosted in NYC, Chicago, Palo Alto
 - Public marketing initiatives launched July 2018
 - On schedule with key metrics:
 - Fundraising
 - Marketing/Communications
 - Next steps:
 - Continue gift conversations
 - Identify additional geographic areas for capital focused events

- **Fundraising**
 - Goal: \$150M by June 30, 2020
 - Secured: \$32.58M (22%)
 - Under discussion: \$41.45 (27%)
 - Gap: \$75.97 (51%)
 - Note: \$50M will name Hollister.

- **Kick-Off Receptions**
 - David Perez / Milena Alberti-Perez (NYC)
 - 57 registered/36 attendees
 - Lisa Walker / Bill Rudnick (Chicago)
 - 45 registered/27 attended
 - Ken Goldman / Sue Valeriote (Palo Alto)
 - 64 registered/35 attended

Events are small, but impactful

- **Marketing and Communications**
 - Strategic communications plan considers:
 - Target audience
 - Medium
 - Date/Timing
 - Channel
 - Frequency
 - Audience Size
 - Purpose/Goal

 - Public marketing completed to date:
 - Engineering Magazine (summer edition)

- Personalized updates from Dean Collins
 - Advisory Councils/CEAA/ECC
 - Capital campaign video- included in all public events where Dean Collins is speaking
 - Career Fair update to inform industry partners
 - Engineering website updated to showcase capital infrastructure project
- Planned public marketing (sampling)
 - Stories about impact of renovations on people and programs
 - Social media updates about capital improvements plan
 - Light pole banners on Engineering Quad highlighting capital infrastructure plan
 - Regular email updates to industry partners listserv
 - SnapChat events
- **Next steps**
 - Pursuing 10-15 identified prospects (from 3 Kick-off Receptions) with substantial potential and individual strategic engagement plans.
 - Address high next Cornell alums with expand reach to industry leaders' capacity to give.
 - Address non-affiliated industry C-suite leaders with capacity and alignment to CornellEngineering to high impact gifts.
 - Think strategic and aspirational ("Quad" versus "Building").
 - Link with University's Campaign.
 - Boston would be a great location for a capital campaign reception. Carol will follow up on this.