# Creating buy-in from key constituencies for supporting LGBTQIA+ engineering students

#### Dr. Amy Rachel Betz, Kansas State University

Dr. Amy Betz is the Assistant Dean for Retention, Diversity, and Inclusion for the College of Engineering at Kansas State University. She is also an associate professor in the Department of Mechanical Engineering. She received her Ph.D. from Columbia Uni

#### Craig Wanklyn P.E., Kansas State University

Craig Wanklyn is an assistant dean for the Carl R. Ice College of Engineering at Kansas State University. Prior to K-State, he was an associate at M-E Engineers in Denver, Colorado, and was on the board of governors for the Rocky Mountain chapter of ASHRAE. He holds a bachelor's and master's degree in architectural engineering and an MBA. He is a licensed professional engineer and a LEED-accredited professional in building design and construction.

#### **Rachel Levitt, Kansas State University**

# Creating buy-in from key constituencies for supporting LGBTQIA+ engineering students

Dr. Amy Betz (she/her)<sup>1</sup> Craig Wanklyn, PE, MBA (he/him)<sup>1</sup> Dr. Rachel Levitt (they/them)<sup>2</sup> Mariya Vaughn (she/they)<sup>3</sup>

1-College of Engineering, 2-Social Transformation Studies, 3-English/K-State First

KANSAS STATE

# **Presentation overview**

- We will present some background, theories, and provide examples – Content includes discussion of suicide and other sensitive topics
- Most of the session will be interactive and we encourage people to discuss in groups
- But you don't have to share, and it is okay to disengage if needed
- Please be respectful, kind, and curious

KANSAS STATE

This gives an overview of the presentation but also sets up the rules of engagement for the session. We hope people will be comfortable sharing their personal experiences but we also know that can be difficult.

50 minutes total

- 1) Introductions and expectations 5 minutes
- 2) Climate 10 minutes
- 3) Change theory 5 minutes
- 4) What we are doing 10 minutes
- 5) Levels of leadership/connection 10 minutes
- 6) Creating an action plan 10 minutes



While members of the audience may be familiar with this graphic, we do not think it can be overshared! This is one of the most powerful tools to answer, "why should I care?" Generation Z has a much higher rate of LGBTQIA+ identification than any previous generation. This is having a profound influence on attitudes and beliefs as well as their expectations and choices. Generation Z is the bright green line at the top.



This chart shows the impact the climate is making on choices and decision making. LGBTQ IA+ students are more likely to move to find colleges that are more welcoming.



This chart further shows why it matters if graduating more engineers and having a diverse work force is important to your college. Supporting LGBTQIA+ students should be part of the student success discussion.



A US map showing the current political climate of bans on transgender youth.



A US map showing the current political climate of gender-affirming care.



This graphic shows the difference in suicide rate. This demonstrates that there is a connection to other concerns that are commonly brought up in regards to student success and wellness such as mental health. If there are discussions about mental health or suicide prevention in your college/institution this can be a good time to reflect and bring up concerns about LGBTQIA+ students as well. If you have LGBT resource center (or something similar) you should include them in mental health discussions.



There is also data that supports wellness initiatives for LGBTQIA+ students. These issue are not only present but they could be worse within STEM education and the workforce.

# Change Theories (or change resources)

- Nudge Theory (Mertens et al., 2021)
- Managing Transitions (Bridges, 2009)
- Reasons for resistance (Goodman, 2011)
- Switch (Heath Brothers)

#### KANSAS STATE

**Nudge Theory** (have you ever used Duolingo?) many learning apps and games employ Nudge theory. This works best for those that already have the intention to make changes with just-in-time reminders, support, or psychological tricks. Research has shown it can be helpful to get people to make socially desirable decision without negatively impacting freedom of choice. It should be noted that this has a medium effect size.

**Bridges Transition Model** – three stages to change: Endings, Neutral Zone, New Beginnings. Ending- identify what people are losing and learn how to manage these losses. Neutral Zone – Old is gone but new isn't fully operational (Nudge could be used here). People are creating new neural pathways, they may be exhausted confused or in stress. It should always be noted that the stress is temporary and the benefit is that whole groups of people will constantly feel less stress as well! New Beginnings- As people fully operationalize there new "normal" they will establish understandings, values, and attitudes. (You may have experienced this in life especially with children where suddenly they and explaining a value to someone else when you thought they were never listening to you!) Managing this part of the transition well is important for people to establish positive attitudes around change.

**Goodman Promoting Diversity and Social Justice-** This is not a singular model or change theory but a great resource for understanding resistance to change. It can be especially helpful for understanding how to use a theory such as Bridges Transition Model. Identity formation is such a strong part of becoming an engineer almost any change is going to effect or be a threat to identity.

**Switch: How to change things when change is hard** – 1) Identify bright spots! At K-State we have an awesome Spectrum Center (formerly LBGT resource center) and the Social Transformation department. These are great resources to see what is working and how we can adapt. 2) Direct the rider (give information about the change, explain why it is a good idea, 3) Motivate the elephant (this comes from Kahneman and Jonathan Haidt's work but you can also see overlap with Bridges Transition model you must provide space for peoples emotional transitions) 4) Shape the path – the easier you make the change the more likely people are to adapt it, this also overlaps with nudge theory.

Handout with information/examples will be provided.



Here we will invite the audience to think about and share which change theories or resources work best for different groups. We will encourage audience members to think about all areas where change can be made and who has the autonomy or authority to create it. While barriers or okay to discuss, we will try to focus on what individuals have control to change

## Examples of what we are doing

- DEIB Slides, stickers, name tags, reminders (nudge)
- Presenting at institutional and regional conferences
- Work with professional societies (ASME, ASHRAE) (Managing transitions)
- Faculty workshops
- Institutional/athletics support

#### KANSAS STATE

In the past few years at K-State, especially in the College of Engineering, we have made many changes to better support students. We started small-stickers, screens with slides in the hall, and student get togethers. One of the biggest narratives for resistance was the fear how this might effect enrollment or student push back. We promote the success of these initiatives, and have continued to add-on and grow our support. Faculty see the visible elements and start to ask questions, which lead to a faculty workshop in Spring 2023. We have also leveraged some of the conversations and questions we have received from students into presentations we have given at the K-State LGBT Leadership conference in April 2021 and 2022. The most common element we have seen from LBGT students in recruitment and early in their student development is difficulty finding their fit or developing a STEM identity. Several faculty and administrators from the across the K-State University attended these workshops.



This slide has images of several of the initiatives, such as stickers, screens, and name tags. Having more visibility has increased conversations across the college (mostly positive).

We have also included university wide initiatives which include K-State athletics which Craig has been an advocate for at the university. K-State athletics posts on social media for events and have had multiple students and student athletes highlighted in Outsports. This has also included Pride nights at games and DEI video messages at games. The university now has rainbow apparel and items for sale in the student bookstore.

We can frame these initiatives as visibility work, brick and mortar work, and policy work.



This slide shows several campus groups housed out of the LGBT resource center along with a minor as part of social transformation studies. For gender inclusive bathrooms, in old buildings we have to find ways to work within existing signage but with new buildings we have more flexibility for change. The university also hosts a specific lavendar graduation which is attended by university leadership.



K-State administrative support has allowed us to be recognized as a top 30 school from Campus Pride. Dean of student life support for LGBTQIA+ initiatives.



Craig and Amy have been very active in our professional societies and presented on these topics across our respective organizations. This provides additional credibility but also another touch point to learn more about issues and leverage change. For example, if someone brings up concerns about how something will be perceived by alumni we can discuss the response in our professional organizations. Professional organizations have a lot of work to do related to DEI initiatives, however, progress is happening.



Here we will invite the audience to think about who has different levels of power and authority at their institution. One minute discussion at tables with brief share out. We will give participants handouts with sections for 1) Identifying levels of leadership, 2) Aligning changes, and 3) points of connection

# Algoning changes with leadership leadership• K-State Example: Craig wanted to create a stopon recruitment tour to highlightLGBTQIA+ support but at the time no spacewas specific for LGBTQIA+ students

At this point we will go back to the idea of who has power, authority, autonomy to make certain changes. And work to align change theories, ideas for change and leadership level. Individuals will be encouraged to think of specific examples that they could use at their institution. Individuals or groups can share these insights and explain how it will fit into the context of their institution.

# Points of connection

- Example: Who could you meet with?
  - Faculty member connects with student group.
  - Department head meets with faculty.

#### KANSAS STATE

Here we will help to look for points for connection so individuals think about how they may expand change and create additional allies and change agents. Sometimes indentifying where to start is the hardest part. For example, if a faculty member makes a change in their course and see positive benefit for LGBTQIA+ students they could share with their curriculum committee, other faculty, reach out to their teaching and learning center and volunteer for a workshop. What avenues are in place to help this occur?

# **Action Plans**

• Example: Meet with dean/program leader to gain support for one LGBTQIA+ program during the year

#### KANSAS STATE

Now we will provide everyone with time a space to continue their discussions and come up with action plans specific to their situation. This should include concrete plans for something within their direct sphere of influence but also some ideas for connection points so that they can grow the influence and buy-in at their institution. We will also encourage participants to prioritize connection points and think about realistic timelines for implementation. For creating the action plan, large sheets of paper will be provided for each group/table to work on a plan together. This may or may not be specific to an institution but it is aspirational and the multiple plans will be shared with the whole group and may be helpful for all audience members to see as they think about how/what they might want to implement at their institutions. If time allows we may also synthesize and discuss common themes.

## **References and resources**

- Bridges, William, "Managing Transitions: Making the Most of Change" 3rd edition, De Capo Press, 2009
- Cech, Erin A. and William R. Rothwell, "LGBTQ Inequality in Engineering Education," Journal of Engineering Education, 2018
  Cech, Erin A.
- Edelman, Jon, "Students Weigh Anti-LGBTQ+ Laws in College Decisions" Diverse Issues in Higher Education, March 15, 20023, accessed May 30th https://www.diverseeducation.com/student-issues/article/15352331/students-weigh-antilgbtq-laws-incollege-decisions
- Goodman, Diane J. "Promoting diversity and Social Justice: Educating People from Privileged Groups
- Hughes, Bryce E., "Coming out in STEM: Factors affecting retention of sexual minority STEM students," Science Advances, 2018
- Jones, Jeffery M., "LGBT Identification U.S. LGBT Identification Steady at 7.2% Gallup, February 22, 2023
- Mertnes, S., m. Herberz, U.J.J. Hahnel, and T. Brosch, "The effectiveness of nudging: A meta-analysis of choice architecture interventions across behavioral domains," Psychological and Cognitive Sciences, 2021
- UCLA School of Law Williams Institute
- http://www.ustranssurvey.org

#### KANSAS STATE