8

Communications

The University of Toronto's Faculty of Applied Science & Engineering is Canada's #1-ranked engineering school and among the top-ranked in the world. From autonomous drones delivering life-saving defibrillators, to students designing and racing the world's fastest human-powered vehicle, U of T Engineering embodies boundless creativity, ingenuity, collaboration, exploration and innovation. How we tell our story matters.

The Faculty employs comprehensive marketing and communications strategies that leverage print and digital platforms to advance our priorities and visibility with key stakeholders across campus, throughout Canada and around the world. Our team includes the Engineering Strategic Communications office, along with more than 30 colleagues in communications and external relations roles across the Faculty who constitute our Engineering Communications Network (ECN).

In 2016–2017, Faculty communicators were recognized with 10 awards from professional communication and design organizations locally, nationally and internationally. These included accolades for the "Future of Health-Care Engineering" issue of our alumni magazine *Skulematters;* for the dynamic "You Belong Here" microsite designed to encourage admitted students to accept their offers; and for the engaging and innovative graffiti mural surrounding the site of the forthcoming Centre for Engineering Innovation & Entrepreneurship.

U of T Engineering has an international reputation for our world-class research, the diversity and global fluency of our faculty and students, excellence in experiential engineering education, and for driving innovations to market through commercialization and entrepreneurship. In all of these endeavours, our Faculty is addressing the world's most pressing challenges and preparing the next generation of engineering leaders. Our communications efforts continue to enhance and expand the Faculty's reputation for excellence and leadership in these areas.

Selected Communication Projects

#DisplayYourPride

Diversity deepens the engineering creative process, enhances student experience and enriches the profession — it is a core value of U of T Engineering. Engineering Strategic Communications leveraged International Pride Month in June to showcase our Faculty's diversity. On June 21, 2016, our students, staff, faculty and Dean united to display their pride by forming the Pride flag, a symbol of inclusivity, out of 24 colourful balloons. Conceived as a social-first communications piece designed to engage our community online, the event was captured in photos and videos. This highly visual content generated more than 100,000 post impressions — a measure of reach — on Facebook alone. The project reinforced our message of diversity and inclusivity in a fresh, fun and unexpected way, and showcased U of T Engineering as a positive, creative and supportive place to study and work.

Innovate U

On May 13, 2016, more than 1,400 students in grades 3 to 8 converged on U of T for Innovate U, a day of hands-on activities celebrating science, technology, engineering and math (STEM) and the power of innovation. The one-day event was a first-of-its-kind partnership between U of T Engineering, Google Canada and Actua, a leading Canadian STEM-outreach charity. Innovate U engaged students and teachers from 30 elementary schools within the Toronto District School Board (TDSB), making it Canada's largest STEM event for kids. Innovate U positioned U of T Engineering as a leader in experiential learning and educational innovation, and strengthened relationships with key government and industry partners. The event garnered 24 earned media stories worth more than 5.6 million impressions across broadcast, print and online outlets, including *Global News, CBC, Toronto Star, Huffington Post* and others.

Strategic Website Redesigns

From August through December 2016 we redesigned four key Faculty websites: U of T Engineering News (news.engineering.utoronto.ca), Discover Engineering (discover.engineering.utoronto.ca), Engineering Alumni & Friends (alumni.engineering.utoronto.ca), and the Lassonde Institute of Mining (lassondeinstitute.utoronto.ca). These sites were migrated to new WordPress themes reflecting best practices in information architecture and digital design, further streamlining the visual identity and user experience across all Faculty sites. Site analytics informed content reconfigurations to deliver key messages and critical information to specific target audiences, from prospective students and parents, to members of the media, to alumni and donors. In 2016–2017, the UTIAS and MIE websites became the final two departmental sites to migrate to the mobile-adaptive, modular WordPress platform, completing this multi-phase migration.

Thought Leadership through Opinion Pieces

U of T Engineering took a leadership position in several key issues this year, including celebrating alumna Elsie MacGill's (ElecE 2T7) nomination as the face of the new Canadian banknote as a victory for women in engineering, and standing shoulder-to-shoulder with peer institutions on the important issue of meeting this country's urgent need to replace retiring engineers. In December 2016, Deans Cristina Amon, Mary Wells of University of Waterloo and Kim Woodhouse of Queen's University penned a joint opinion piece arguing that MacGill should be the choice for the new banknote on the grounds that her pioneering career reflects Canadian values. The piece was published in both the *Kingston Whig-Standard* and the *Waterloo Region Record*. In late 2016 and early 2017, Engineering Strategic Communications worked with Vice-Dean, Graduate Studies Markus Bussmann, and the Canadian Graduate Engineering Consortium (CGEC) to develop a profile-building opinion piece for the five-university group. The piece was published in *Policy Options* magazine on March 16, 2017, under the headline "Canada's engineering shortfall," and presented a compelling call to action for Canadian business leaders to capitalize on advanced-degree holders from Canadian engineering schools. The five partner universities all shared this content on their social media channels, where it reached more than 50,000 additional readers on Facebook alone.

Enhancing Communications Capacity

Our Engineering Strategic Communications team continues to deliver professional development opportunities to enhance capacity in our Engineering Communications Network (ECN). With more than 30 communicators across the Faculty's departments, divisions, institutes and administrative offices, the ECN is a powerful group of multi-talented staff members working together to advance our shared and respective communications objectives. The ECN meets monthly to share information and updates, and participate in a professional development session — topics this year included best practices in photography and

---

Data and highlights in this chapter are presented by fiscal year (May to April).
Note: Impressions are the estimated number of people who may have interacted with a story, based on circulation (newspapers/magazines), viewers (TV), listeners (radio) and unique monthly visitors (online).

videography, effective digital storytelling, fast and accurate news writing, and basics of visual identity and graphic design. Relationships with the ECN, and with colleagues on the central University of Toronto Communications team, are critical to our shared success, and we are continually refining our processes to ensure efficient coordination and information-sharing across all three levels.

Fourth-Year Exit Survey

To better understand the experiences of our students and how their time at U of T Engineering shaped their future aspirations, the Office of the Vice-Dean, Undergraduate and Engineering Strategic Communications created a Faculty-wide exit survey in consultation with departments and student services across the Faculty. While some departments previously administered surveys to their own graduating students, a survey of all graduating students offers a more comprehensive understanding of life as an engineering student. Survey results will assist the Faculty in further enhancing existing services and programming. Results may also inform our best practices for staff and faculty to communicate more effectively with current students. Longer term, survey results will enable us to draw comparisons between the results of the Faculty's first-year exit survey, administered by the First Year Office, and the nationwide survey of graduating students conducted by Engineers Canada.

Refined Media Reporting and Social Media Analytics

In 2016–2017, we continued to focus our earned media efforts along the five strategic priority areas identified in the Faculty's Academic Plan, tracking coverage of U of T Engineering stories across all media locally, nationally and internationally. These results are compiled monthly, including relevant comparisons against an average month, and reported to communications colleagues and senior leaders across the University. In May 2016, Engineering Strategic Communications subscribed to analytics platform Sprout Social and added social media metrics to our monthly report. These data provide a benchmark of the effectiveness of our social media strategy and reflect the traction of our messages with key audiences across our three primary social media channels: Facebook, Instagram and Twitter.

Media Coverage

U of T Engineering earned 3,563 stories in external media outlets between April 1, 2016 and March 31, 2017, a 5% increase over the previous period. Almost half of these stories appeared in international outlets, and 65% of earned media impressions — an indicator of impact measured by the estimated number of people who may have interacted with a story — reached audiences outside of Canada. In total, stories mentioning U of T Engineering faculty, students, staff or alumni generated more than 668 million impressions in 2016–2017. This coverage was distributed across digital, print and broadcast media, including mainstream, niche and industry-targeted outlets. This coverage builds the profile for U of T Engineering strategic priority areas with key global audiences, including prospective undergraduate and graduate students, engineering thought leaders and policymakers, peer institutions, alumni, donors and friends of the Faculty.

The following list of media headlines includes selected highlights of our coverage:

Bioengineering/Health

- Coffee shops, 24-hour ATMs the best locations for life-saving AEDs, research shows *(CNN, U.S. News and World Report, Reuters, CBC News, Toronto Star, CTV News, Global News, The Globe and Mail)*
- Diesel trains may expose passengers to exhaust *(Toronto Star, CBC News, CTV News, Metro Toronto, Environmental News Network, Railway Age)*
- Clean air map from U of T Engineering researchers helps cyclists avoid air pollution *(MetroNews Canada, The Weather Network, GlobalNews, CBC Metro Morning, Fast Company)*
- Drone-delivered AEDs offer novel approach to saving lives at home *(CBC The National, CBC News, Toronto Star, The Loop, Futurism, Unmanned Aerial, EMS World)*
- Many life-saving defibrillators behind locked doors during off-hours, study finds *(The Globe and Mail, Yahoo! News, Torontoist, Medical News Today)*

Sustainability

- Saving sunshine for a rainy day: New catalyst offers efficient storage of alternative energies *(The Globe and Mail, Western Daily Press, Phys.org, Green Car Congress, Design News)*
- Analyzing the lifetime greenhouse gas emissions of Toronto's Sheppard subway line *(WIRED, Toronto Star, Metro Toronto)*
- Printable solar cells just got a little closer *(Economic Times, India.com, Bangladesh Daily Star, Optics, Nanowerk, Indian Express)*
- Recycling carbon dioxide: U of T researchers efficiently reduce climate-warming CO_2 into building blocks for fuels *(VICE Motherboard, Forbes, CBC News, Science Daily, TVO)*

Engineering Experiential Learning

- Saving the stacks: First-year Engineering students inspire retrofit for Fisher Rare Book Library *(CBC News, CBC Metro Morning, CityTV, Metro Toronto, Toronto Star)*
- Self-driving electric car to be created by new U of T Engineering student team *(Financial Post, Globe and Mail, CTV News, CleanTechnica, Engadget, CNET)*
- How does water behave in space? U of T Engineering researchers aim to solve longstanding mystery *(Metro Toronto, Toronto Star, National Post)*
- U of T Engineering students bring design solutions to challenges in Toronto communities *(Toronto Star, City News, 680 News Toronto)*
- Making sense of disasters: U of T Engineering offers new certificate in Forensic Engineering *(CBC News, Global News, Toronto Star, Toronto Sun, Victoria Times-Colonist, Waterloo Region Record)*

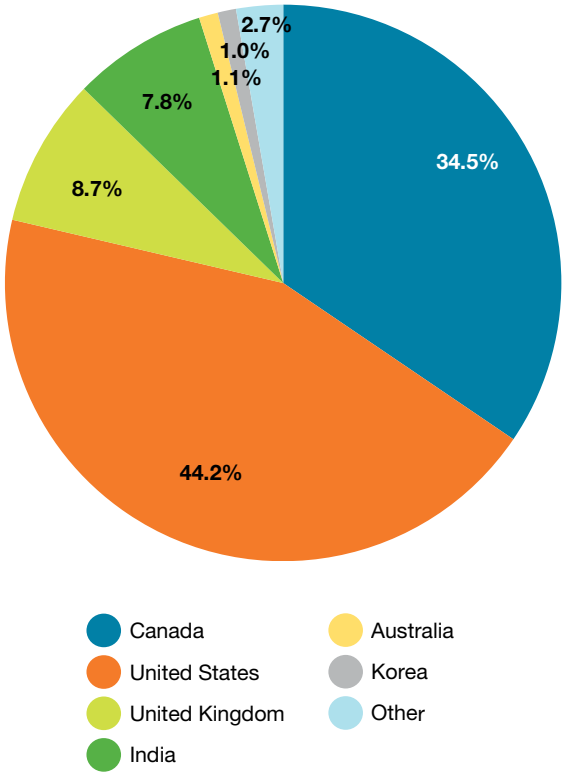
Entrepreneurship/Commercialization

- ModiFace invests in developing augmented reality, artificial intelligence talent at U of T Engineering *(BetaKit, CBC News, CBC Metro Morning, Yahoo! News, CanadaIT, Exchange Morning Post)*
- U of T Engineering alumni set world record for fastest human-powered vehicle — again *(Popular Mechanics, Gizmodo, International Business Times, designboom, MSN, Engineering.com, Design Engineering)*

Information & Communications Technology

- New AI algorithm taught by humans learns beyond its training *(CBC.ca, Nature World News, Research and Development Magazine, EconoTimes, Phys.org, Futurism, Engineering.com, Science Daily)*
- 'Flying saucer' quantum dots hold secret to brighter, better lasers *(Cosmos Magazine, Research and Development Magazine, Phys.org, Nanowerk)*

Figure 8.1a **Proportion of U of T Engineering Media Stories by Outlet Location, 2016–2017**



Note 8.1a: The impressions for one story may be included in the counts of multiple countries.

Figure 8.1b **Proportion of U of T Engineering Impressions by Strategic Priority Area, 2016–2017**

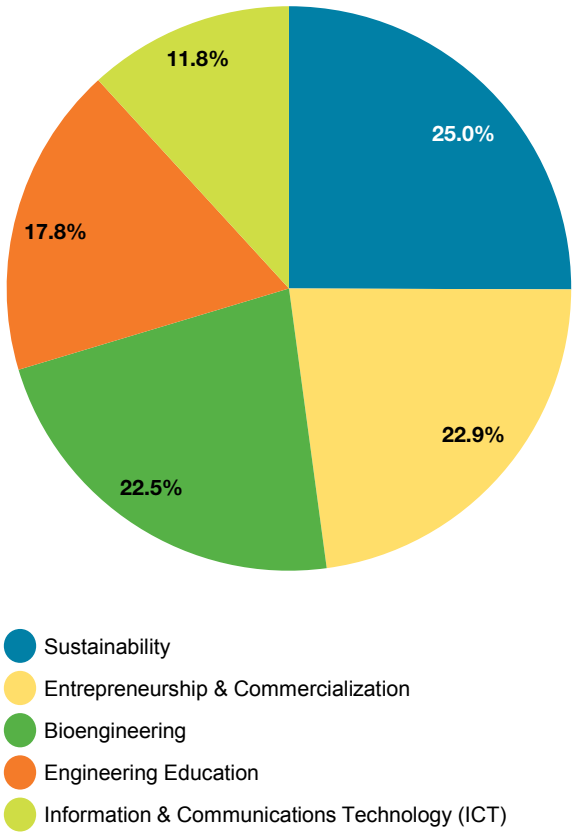
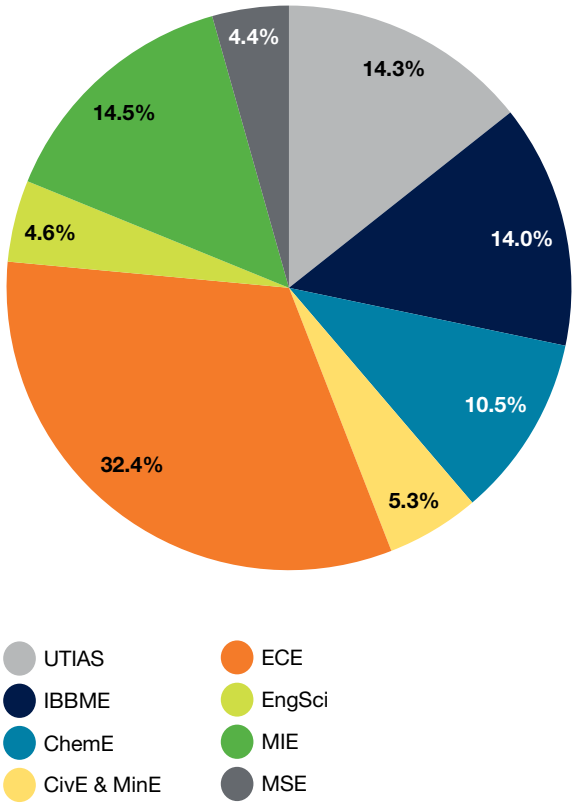


Figure 8.1c **Proportion of U of T Engineering Impressions by Academic Area, 2016–2017**



Engineering News at U of T

Social media channels are among the most powerful and direct communications vehicles for engaging with key stakeholders, and are a key instrument in enhancing the Faculty's reputation as Canada's top-ranked engineering school. Engineering Strategic Communications integrates current best practices in social media into its storytelling approaches and daily processes. We use social media to augment and amplify our key messages to peer institutions, prospective and current students, alumni, policymakers and select influencers, as well as staff and faculty. Social media evolves swiftly, and we leverage key metrics to continuously inform our strategy and measure our effectiveness in reaching these audiences.

In 2016–2017 we ran several social-first communications campaigns designed to engage the U of T Engineering community and prospective students while growing our followers across our Facebook, Instagram and Twitter channels. Monitoring social media analytics in real time through Sprout Social allows us to measure the effectiveness of our efforts and iterate quickly. Our National Engineering Month campaign in March 2017 is a successful example: throughout the month, we shared highly visual content showcasing discoveries, innovations or inventions with roots in U of T Engineering. Launched under the hashtag #EngineeredHere, these postcard-style images gained strong traction on Facebook and Twitter. Across both platforms,

Note 8.1b: One media story can reference multiple strategic priority areas. In those cases, the impressions are included in the counts for both areas. Here, 'other' refers to stories not directly classifiable into one of the five strategic priority areas.
Note 8.1c: One media story can reference multiple academic areas. In those cases, the impressions are included in the counts for both areas.

the campaign generated 309,101 impressions, an increase of 30.4% over the previous period, and sparked 8,699 total engagements, an increase of 97.3%.

Further refinement of our audience segmentation across the Faculty's three primary platforms has yielded results: Facebook largely reaches students and young alumni, Twitter engages peer institutions, policymakers and the research community, and Instagram is targeted exclusively to current and prospective students and celebrates our vibrant student experience. Tailoring our messaging for each platform has generated unprecedented gains in followers across all channels, including Recruitment, Alumni and the main Faculty accounts. In 2016–2017, these channels attracted a total of 18,497 fans, an increase of 41.3% over the previous period. Engagements, the number of unique people who have clicked, liked, commented on or shared our posts, climbed to 60,335 in 2016–2015, a 157.8% increase.

Figure 8.2 **Top Stories on the Engineering News and U of T News Websites, 2016–2017**

Page Title	Date Posted	Engineering News Site	U of T News Pageviews	Total
U of T's youngest student sets her sights on the stars	Mar. 15, 2017	3,989	8,314	**12,303**
Alumnus funds scholarship for U of T students involved in eSports	Jan. 18, 2017	4,241	7,232	**11,473**
Five U of T Engineering alumni make the shortlist to become Canada's next astronaut	Feb. 2, 2017	2,519	7,547	**10,066**
Printable solar cells just got a little closer	Feb. 16, 2017	7,603	634	**8,237**
U of T Engineering student wins Rhodes Scholarship	Nov. 22, 2016	1,308	6,801	**8,109**
New AI algorithm taught by humans learns beyond its training	Nov. 16, 2016	3,847	2,475	**6,322**
Women make up more than 40% of U of T Engineering first-year class	Dec. 8, 2016	3,609	272	**3,881**
Grads to Watch: Meet 16 global engineering leaders	June 8, 2016	3,077	241	**3,318**
Professor Elizabeth Edwards wins Killam Prize	Apr. 18, 2016	912	2,248	**3,160**
U of T Engineering alumni set world record for fastest human-powered vehicle — again	Sept. 26, 2016	2,719	272	**2,991**
Making sense of disasters: U of T Engineering offers new certificate in Forensic Engineering	Dec. 13, 2016	1,336	1,479	**2,815**
Recycling carbon dioxide: U of T researchers efficiently reduce climate-warming CO_2 into building blocks for fuels	Aug. 3, 2016	1,348	1,252	**2,600**
15 U of T Engineering students honoured with 2016 Gordon Cressy Student Leadership Awards	Apr. 21, 2016	1,915	436	**2,351**
How does water behave in space? U of T Engineering researchers aim to solve longstanding mystery	July 18, 2016	1,381	899	**2,280**
Clean air map from U of T Engineering researchers helps cyclists avoid air pollution	Apr. 22, 2016	956	1,151	**2,107**
Canada's largest STEM event for kids inspires 1,400 future innovators	May 12, 2016	2,103	-	**2,103**
Drone-delivered AEDs offer novel approach to saving lives at home	Nov. 14, 2016	1,069	981	**2,050**
Alumnus leaves landmark $20-million bequest to U of T Engineering	May 26, 2016	1,322	674	**1,996**
Engineering students construct monument to mark National Day of Remembrance and Action on Violence Against Women	Dec. 6, 2016	1,533	226	**1,759**
U of T Engineering doctoral students receive Vanier Scholarships worth $150,000	Oct. 14, 2016	1,563	-	**1,563**
The Entrepreneurship Hatchery: Three student startups to watch	May 31, 2016	1,054	257	**1,311**
U of T engineer says diesel trains may expose passengers to exhaust	Feb. 7, 2017	289	1,011	**1,300**
Can microwaves make mining more sustainable?	Feb. 1, 2017	660	604	**1,264**
Double-fortified salt to improve nutrition for 24 million in Uttar Pradesh	Feb. 13, 2017	627	528	**1,155**
11 U of T Engineering professors and alumni inducted into Canadian Academy of Engineering	June 27, 2016	1,142	-	**1,142**
Three startups to watch from Demo Day at U of T Engineering's Entrepreneurship Hatchery	Sept. 13, 2016	785	257	**1,042**
Hart Professorships awarded to seven early-career faculty members	Sept. 1, 2016	1,035	-	**1,035**
Meet 14 new professors joining U of T Engineering	Oct. 25, 2016	1,014	-	**1,014**
Academic excellence and athletics: 25 U of T Engineering students recognized	Nov. 25, 2016	993	-	**993**
Peter Zandstra named University Professor, U of T's highest academic rank	June 3, 2016	956	-	**956**
'Our students are fearless': Deepa Kundur starts as chair of Engineering Science	Jan. 6, 2017	916	-	**916**
Sponging up oil from tailings ponds	Feb. 27, 2017	529	362	**891**
New stem cell-based gene test predicts patient risk in acute myeloid leukemia	Dec. 7, 2016	327	543	**870**
The next generation of solar pioneers: Electrifying a nation	Dec. 7, 2016	455	377	**832**
Four recent U of T Engineering graduates go through business bootcamp at The Next 36	May 31, 2016	762	-	**762**

Note 8.2: Data shown is as of May 1.

Online Activity

Faculty Website

A refresh of the Faculty website (engineering.utoronto.ca) in spring 2016 for improved homepage design and enhanced search engine optimization yielded a 5% increase in acquisition through organic search (the most common way visitors reach the site). Direct traffic to the homepage was also up 19% over 2015–2016, and referral from other sites is down 42%, revealing that the majority of visitors seek out the site directly. The average amount of time users spent on each page increased almost 19% to 3:46, and exits from the site dropped almost 7% over the previous period, indicating that users are finding the information they seek more quickly. More than 40% of users visited the site from outside of Canada. The proportion of users accessing the Faculty site via mobile devices climbed 11.8% from 2015–2016, continuing an accelerating trend across all sites.

Recruitment and Admissions Websites

Our Discover Engineering website (discover.engineering.utoronto.ca) is the first destination for prospective students and their families seeking information about U of T Engineering programs, culture and offerings. It is our first impression to this critical audience. Unique visitors to the site increased from 154,781 to 212,963, a jump of 37.6% over the same period in 2015–2016 and pageviews climbed 16%, from 759,245 to 882,231. The proportion of users visiting the site from mobile devices almost doubled since the previous year. Visitors to the site came from 195 countries, illustrating the strong international draw of our programs.

Once they receive an offer, admitted students are provided exclusive access to our You Belong Here microsite (uoft.me/YouBelongHere). This dynamic site presents positive and congratulatory imagery and key messaging, as well as information on next steps for students to accept their offers. The You Belong Here site is not indexed by Google, and is therefore exclusively viewed by admitted students, providing valuable insight into students' actions and decision-making processes post-offer. When it was introduced as a component of the 2016 recruitment cycle, U of T Engineering extended 2,971 printed offers of admission, and 3,100 unique users engaged with the site, resulting in 17,000 pageviews. The higher number of visitors than offers is likely due to admitted students sharing the site with their friends or families. Of students offered admission, 40% ultimately accepted — a record-high yield — and their entering average was at an all-time high of 93.2%. The 2016 first-year class was the most gender-diverse in the Faculty's history, with 40.1% women, up from 31.4% in fall 2015.

During the 2017 recruitment and admissions cycle, the site proved an incredibly popular and effective communications vehicle for our admitted students: unique users increased 279.1% over the previous year, and pageviews climbed 241.3%. At the same time, the site's bounce rate decreased by 17%, indicating that students who arrive to the site find valuable information immediately. Women represent more than 40% of visitors to the site (source: Google Analytics). Besides the homepage, the page providing step-by-step guidance on how to accept an offer is the most-visited location, and the average time spent on this page is 5:13, compared to a site average of 1:42.

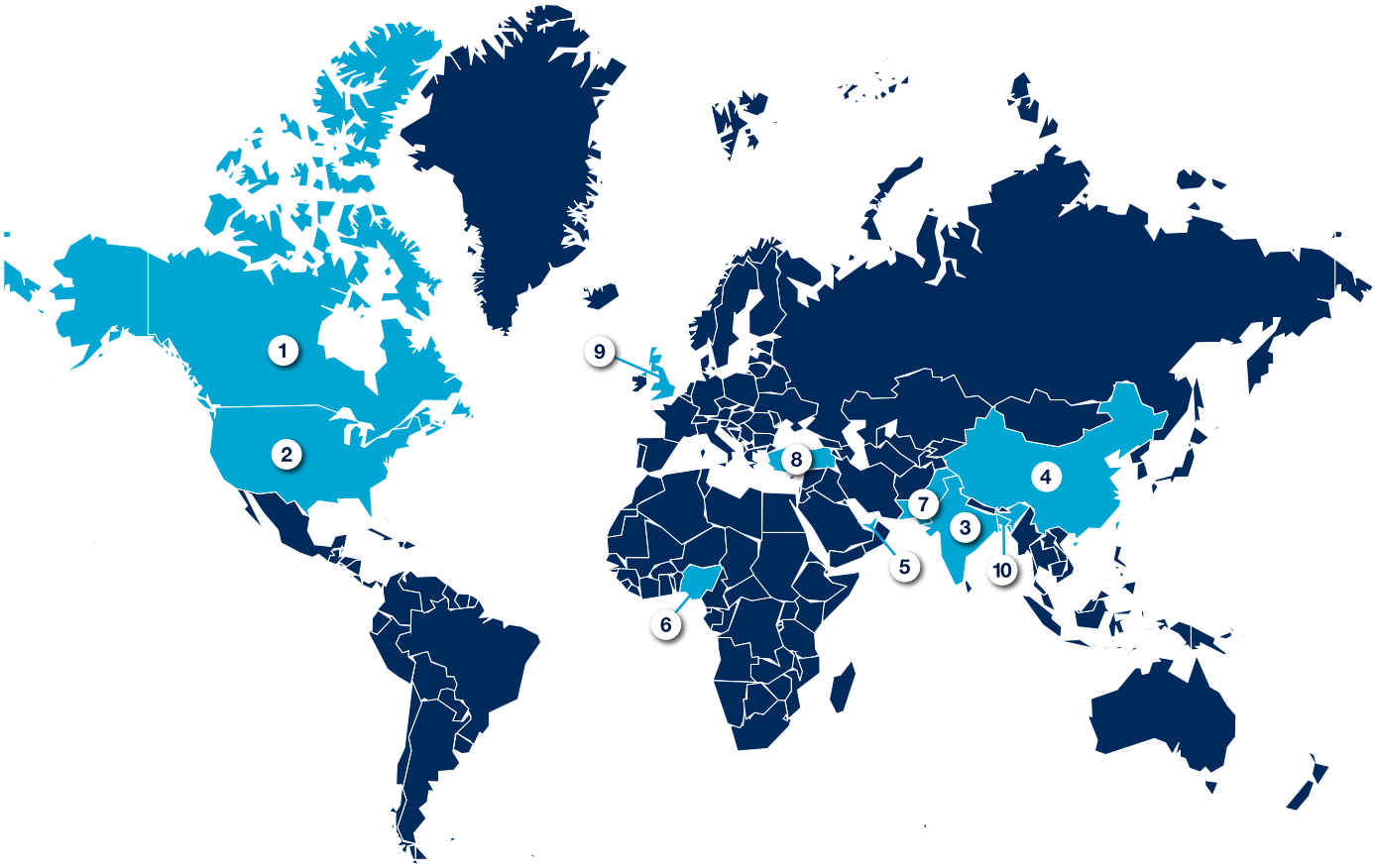
Figure 8.3a Summary of Analytics for engineering.utoronto.ca and news.engineering.utoronto.ca, 2016–2017

	Faculty Site	News Site
Pageviews	402,686	199,707
Unique visitors	146,455	104,973
Average number of pageviews per session	1.66	1.43
Average amount of time spent on site	2:31 min	0:54 min
Cities of origin	5,862	6,153
Countries of origin	198	192

Figure 8.3b Summary of Analytics for admit.engineering.utoronto.ca, 2016–2017

	You Belong Here Microsite
Pageviews	23,969
Unique visitors	4,632
Average number of pageviews per session	2.81
Average amount of time spent on site	3:05 min
Cities of origin	630
Countries of origin	91

Figure 8.4 **Visitors to discover.engineering.utoronto.ca: Top 10 Countries, 2016–2017**



Country	Visits
1. Canada	210,981 (60.32%)
2. United States	20,506 (5.86%)
3. India	18,966 (5.42%)
4. China	10,734 (3.07%)
5. United Arab Emirates	6,756 (1.93%)
6. Nigeria	5,925 (1.69%)
7. Pakistan	4,443 (1.27%)
8. Turkey	3,914 (1.12%)
9. United Kingdom	3,426 (0.98%)
10. Bangladesh	3,375 (0.96%)