

## Summary

Spring 2019 saw **11,651 students and faculty** use the Media Commons, Maker Commons, and Immersive Experiences Lab initiatives across the Commonwealth. Much of this use was focused in **259 classes** in nearly every discipline offered at Penn State. To facilitate these interactions outside of University Park, Commonwealth consultants **met with students and faculty at the campuses 75 times** to offer in-person instruction, consultations and remote support.

**One Button Studios at 19 campuses** helped students and faculty create **10,896 academic videos**, comprising over **14 straight days of video**. Students across the Commonwealth also created **2,849 3D prints** in pursuit of their own curiosity and course work.

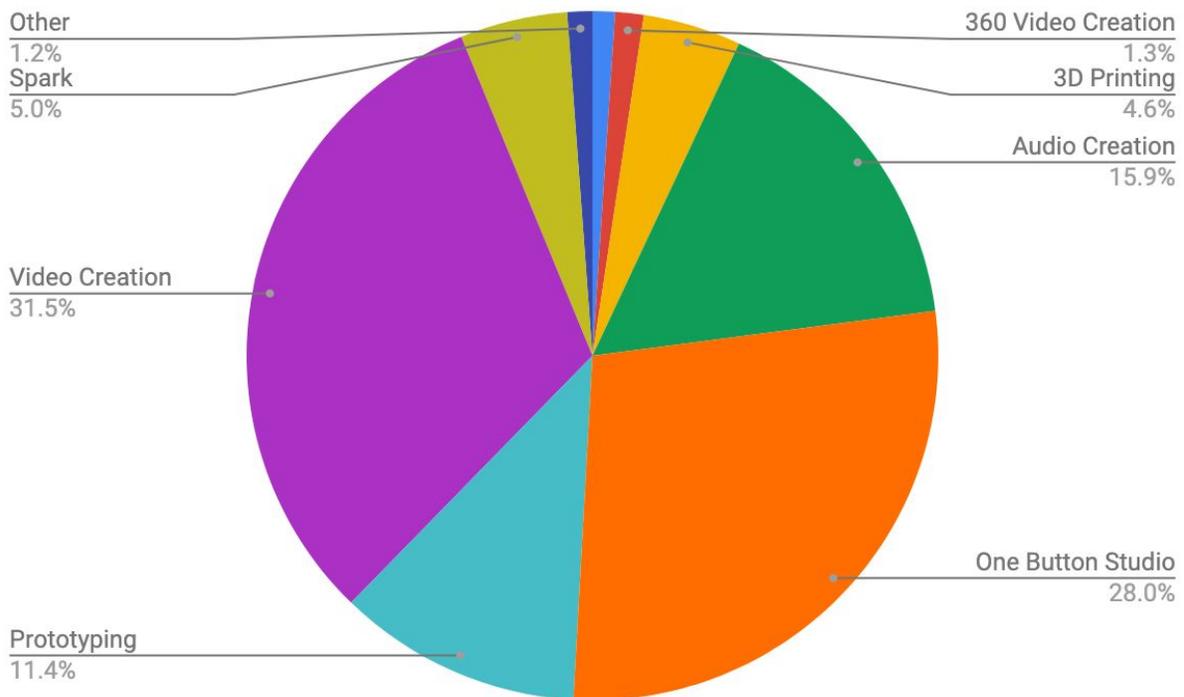
The report that follows breaks down our interactions with students and faculty and examines engagement levels with services offered, locations, and by individual colleges. Throughout the report we'll draw attention to exciting assignments, surprising class partnerships, and interesting observations from the semester - stories that tell the ways in which Penn State faculty and students are pushing the boundaries of education into the future. We'll also point out usage and technology trends that draw from Media Commons' proven history in supporting multimedia and emerging technology as well as reflect on challenges and opportunities in the coming semesters.

## Penn Staters Helped

Faculty and students used Media Commons and Maker Commons services in a variety of ways in all of our locations over the course of the semester. These charts count how many people were aided by our consultants in either 1-on-1 consultations or in-class workshops.

Media Commons @ University Park	# of Penn Staters Helped
Pattee Library Knowledge Commons	3,201
Pollock Building Computer Lab	258
PAMS Library, Davey Lab	159
Immersive Experiences Lab, Agricultural Sciences & Industries Building	167
Media Commons Workshops	3,975
Maker Commons Workshops	865
Immersive Experiences (IMEX) Workshops	149
<b>University Park Total</b>	<b>8,774</b>

**University Park Technology Breakdown:**



360° Video Consumption	360° Video Creation	3D Printing	Audio Creation	One Button Studio	Prototyping	Video Creation	Adobe Spark	Other
110	140	482	1,675	2,937	1,199	3,310	528	123

**Featured Stories:**

- The Maker Commons partnered with **World Campus** to provide support for **FRAR 100** - Introduction to Forensic Photography online course. Instructors provided 3D models of forensic photography content to be 3D printed, mailed to the online students, and used as subject matter for photography assignments. Previously, these assignments relied on students either purchasing material or using a wide-range of subject matter local to them which became difficult for the instructors to assess.
- At **University Park**, students in Dr. Johanna Wagner’s **IT 475** (Modern Italian Literature and Cinema) course produced 5-minute Neo-realist film adaptations of an important moment from one of several novels discussed during the semester. The students first translated the text into image storyboards, then recorded and edited their film using iMovie.

## Campus Engagement

Campuses often don't have their own local Media Commons support and so rely on our consultants to visit campus to work with faculty and provide workshops for students. We host several tailored faculty events each semester to discuss opportunities and visit campuses as often as possible to support class partnerships.

Western Campuses	# of Penn Staters Helped	# of Classes	Events	In-Person Visits*	Remote Sessions†
Altoona	188	4	-	3	7
Beaver	579	11	-	6	7
Behrend	83	4	1	4	1
DuBois	-	-	-	-	-
Fayette	-	-	-	-	-
Greater Allegheny	-	-	-	-	-
Harrisburg	94	-	-	-	-
Mont Alto	109	4	1	-	1
New Kensington	201	4	1	4	3
Pittsburgh Center	-	-	1	-	-
Shenango	16	1	-	1	-
<b>Totals</b>	<b>1,270</b>	<b>27</b>	<b>4</b>	<b>17</b>	<b>19</b>

\* In-Person Visits include travel to campus for teaching workshops, faculty consultations, meeting with students, hosting events, equipment and computer service, and/or One Button Studio tune-ups.

† Remote Sessions denote online trainings via Zoom, critiques of project materials uploaded to Canvas, Box, etc and individual meetings with students via videoconferencing.

### Featured Stories:

- Capping off the Spring semester, the **New Kensington** campus celebrated the launch of their own IMEX-style viewing pod with a kick off event for faculty, staff and students.

- At **Altoona**, two sections of **CI 280** used video to capture autobiographies focused on what brought each pre-service teacher to their decision to work in classrooms with non-native English speakers.
- In her online **ENGL 202C and 202D** courses, Tiffany MacQuarrie at **Beaver** leveraged instruction through Zoom to deliver both Media Commons overview training and group storyboard workshops to 39 students.

Eastern Campuses	# of Penn Staters Helped	# of Classes	Events	In-Person Visits*	Remote Sessions†
Abington	59	3	1	3	-
Berks	706	14	-	7	4
Brandywine	562	10	-	7	2
Great Valley	23	1	1	8	-
Hazleton	80	-	-	1	-
Lehigh Valley	9	1	-	-	1
Schuylkill	8	1	-	-	1
Scranton	50	1	-	1	1
Wilkes-Barre	24	2	-	1	1
York	86	1	-	1	-
<b>Totals</b>	<b>1,607</b>	<b>34</b>	<b>2</b>	<b>29</b>	<b>10</b>

\* In-Person Visits include travel to campus for teaching workshops, faculty consultations, meeting with students, hosting events, equipment and computer service, and/or One Button Studio tune-ups.

† Remote Sessions denote online trainings via Zoom, critiques of project materials uploaded to Canvas, Box, etc and individual meetings with students via videoconferencing.

### Featured Stories:

- Students enrolled in **BUSAD 811**, as part of an MBA cohort splitting time at the **Great Valley campus and Navy Yard**, utilized the Media Commons iPads to create videos using the iMovie app, as well as a marketing campaign using the Adobe Spark Pages app. There were 13 students in the class. This was the first class supported by the Media Commons at the Penn State Navy Yard location.
- At the **Wilkes-Barre** campus, independent study students and two faculty members teamed up to create instructional 360 videos on Surveying. They plan on continuing to

make these videos, taking the cameras to construction sites, to create additional instructional content for the Surveying program at Wilkes-Barre.

## Class Partnerships Across Colleges

Media Commons consultants partner with faculty from every college at Penn State to help design multimedia and making assignments, provide workshops for students, and 1-on-1 consultations as the students complete their work. This table represents how many classes were worked with in which colleges during the semester.

*Partnered Service Key: Media Commons = MeC, Maker Commons = MaC, Immersive Experiences Lab = IMEX*

Colleges	University Park				Western Campuses				Eastern Campuses				Grand Totals
	MeC	MaC	IMEX	Total	MeC	MaC	IMEX	Total	MeC	MaC	IMEX	Total	
Agricultural Sciences	4	-	7	11	-	-	-	-	-	-	-	-	11
Arts & Architecture	3	1	-	4	1	-	-	1	-	-	-	-	5
Business	4	-	-	4	2	-	-	2	4	-	-	4	10
Communications	3	-	3	6	1	-	-	1	3	-	-	3	10
Earth & Mineral Sciences	7	-	-	7	-	-	-	-	3	-	-	3	10
Education	3	-	-	3	-	-	-	-	2	-	-	2	5
Engineering	-	9	-	9	-	-	-	-	3	-	1	4	13
Graduate School	1	-	-	1	-	-	-	-	1	-	-	1	2
Health & Human Development	4	3	-	7	3	-	-	3	2	-	-	2	12
Information Sciences & Technology	1	2	-	3	2	-	-	2	1	-	1	2	7
Liberal Arts	133	7	-	140	12	-	-	12	12	-	-	12	164
Medicine	-	-	-	-	-	-	-	-	-	-	-	-	-
Nursing	-	-	-	-	4	-	-	4	-	-	-	-	4
Sciences	1	-	-	1	3	-	1	4	1	-	-	1	6
<b>Totals</b>	<b>164</b>	<b>22</b>	<b>10</b>	<b>196</b>	<b>28</b>	<b>-</b>	<b>1</b>	<b>29</b>	<b>32</b>	<b>-</b>	<b>2</b>	<b>34</b>	<b>259</b>

### Featured Stories:

- At **Beaver**, Dr Cassandra Miller-Butterworth's **BIOL 220W** made use of a [custom-made course activity](#) that leveraged the HHMI BiomeViewer and 360° video content to take students into the world's many biomes. Working in teams of two, students made field notes based on their recently-learned understanding of climatograms for each of 19 terrestrial and aquatic locations.
- In response to the evolving partnership at **University Park** with **ENGL 15**, the storytelling presentation and accompanying assignment was completely revamped to meet the needs of the new ENGL 15 project. This rewrite of the approach to storytelling places the emphasis on crafting a story first using three universal principles of

storytelling, then helping students to translate their story and those principles to the medium of their choice (for the purposes of this assignment: Video, Website (Spark), Presentation (OBS), or Social Media). Over thirty sections and 1,500 students participated in the new storytelling workshop and assignment.

## One Button Studio

Media Commons supports the One Button Studio project across many campuses. The One Button Studio allows students and faculty to simply create good quality academic videos, often for recording presentations, lectures, and demonstrations, or completing class assignments.

Location	# of Videos Created	Total Duration of Videos H:M:S
Pattee Library Knowledge Commons (2 studios)	5,660	205:45:14
Pollock Building Computer Lab (2 studios)	848	33:38:06
PAMS Library, Davey Lab	596	17:33:27
<b>University Park Total</b>	<b>7,104</b>	<b>256:56:47</b>
Abington	341	13:46:12
Altoona	218	8:22:52
Beaver	890	14:31:57
Behrend	254	8:30:20
Berks	387	6:17:29
Brandywine	179	02:02:49
Greater Allegheny	Newly	Installed
Great Valley	99	2:41:25
Harrisburg	30	00:30:25
Hazleton	Closed For	Renovation
Hershey	274	7:17:43
Lehigh Valley	Did Not	Report
Mont Alto	82	2:06:45

New Kensington	577	15:15:31
Schuylkill	120	6:12:40
Scranton	Closed For	Renovation
Shenango	113	4:17:31
York	228	5:07:24
<b>Commonwealth Total</b>	<b>3,792</b>	<b>97:01:03</b>
<b>Total One Button Studio Use</b>	<b>10,896</b>	<b>353:57:50</b>

**Featured Story:**

- **Greater Allegheny** ended the Spring 2019 semester by installing its first One Button Studio in the former traditional MeC studio located off the Crawford 001 computer lab. This will be further developed into one of many offerings in a BYO device + gaming lounge during the summer.
- **CH E 470** (Design of Chemical Plants) with Dawn McFadden at **University Park** saw groups of six students recording presentations on their designs for future chemical plants in which they developed critical design logic to evaluate processes, including block flow diagrams, simple material balances utilizing practical heuristics, process flowsheets through computer simulations, flowsheet optimization, and detailed equipment design.

**3D Printing**

The Maker Commons offers students at University Park, the Commonwealth Campuses, and World Campus access to 30 3D printers through an online submission process. The printers are located at University Park but, through a partnership with University Libraries, are able to ship prints to any student for easy pick-up.

Unique PSU Users	868
Hours of Print Time	6,924
Successful Prints	2,849
Filament Used	79,190 grams (~175 lbs)

**Featured Story:**

- The 3D printing service was overhauled in favor of new technology and new features for students and faculty to improve their 3D printing service. After an extensive review, Dremel 3D45 3D printers were selected to replace the old MakerBot 5th gen printers and Cloud Slicing software, 3DPrinterOS, was selected to replace the MakerBot Innovation Center. The Dremel printers are faster, cheaper, and provide higher quality prints while 3DPrinterOS allows for slicing and preparing files in the cloud, greater degree of administrative control and customization, and richer analytics. The new service came online during Spring Break, so the data in the table above represents only half of a semester's worth of use.

## More Impressive Website Reach

The Media Commons website continued its transformation from a largely inward-facing tool to a global resource for information about video and audio production. While usage within the university audience has remained relatively stable (up 128% over Spring 2018), increased visitation from literally everywhere else continues growing rapidly.

- The number of unique visitors reached **170,139, an increase of 142%** from the Spring 2018 semester.
- **The Free Media Library was viewed 10,976 times** across all site users, ranking it as the 6th most popular content.
- Just 19,151 users originated in Pennsylvania, allowing for the rough inference that **about 11% of website traffic was from Penn State students**.
- Within Pennsylvania, **our homepage was viewed 18,664 times** while elsewhere on the website:
  - the Free Media Library was viewed 4,800 times (up 39%)
  - the University Park Appointment Request form was viewed 4,667 times
  - the Using Your One Button Studio resource was viewed 1,043 vtimes
  - the new Storytelling resource created for ENGL 015 was viewed 696 times
  - the Adobe Spark tutorials were viewed 502 times
- Of the other 89% of website traffic, over half originated in the United States while **37% of visits originated outside of the country** (63,879 visitors)

## Sibling Sites Brief Update

Other Media Commons family websites had solid semesters, as well. The **Maker Commons site fielded 6,498 visitors**, 63% of whom originated in Pennsylvania. Top content included the Submission tutorial (8,958 views) and form (8,721 views) as well as the update for 3DPrinterOS (3,829). Over **at IMEX Lab, 1,188 users visited the site**, though **only 42% of these visits were based in-state**, perhaps pointing towards similar growth to Media Commons content. **The Experience Catalogue represented 18% of all page views**, the most popular content on the site.

## Challenges, Opportunities & Notable Trends

- Adobe.psu.edu was overhauled by the Media Commons team to better reflect the creative possibilities and ongoing opportunities around all students and faculty having access to Adobe Creative Cloud. This is expected to have a positive impact on our outreach and interactions with students on these services going forward.
- Augmented Reality continues to be a growth area for the team with numerous prototypes being tested during this semester. We expect to see some of these prototypes translate into class projects and partnerships with faculty in the next academic year.
- In addition, Digital Prototyping, specifically using Adobe XD, is being investigated. A workshop using XD was prototyped and delivered for DevPSU this semester and a number of ideas and projects are being considered to push this forward over the summer and into the fall.
- The Maker Commons is exploring adding new technology and services to its portfolio with the addition of a laser cutter and high-end 3D scanner. These will be tested during the summer with planned implementation for fall semester.