

# Spaces to Collaborate: An Examination of the Use of Library-Provided Technology in Group Study Spaces

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UNC  
**GREENSBORO**  
University Libraries

# University Libraries, UNC Greensboro

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# Surveys and Focus Groups



- What do students want?
- Look at other libraries
- Many design iterations
- Need for library-provided technology?



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\$76,000 - annual cost to support public PC hardware

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\$46,000 - one-time allocation for new spaces

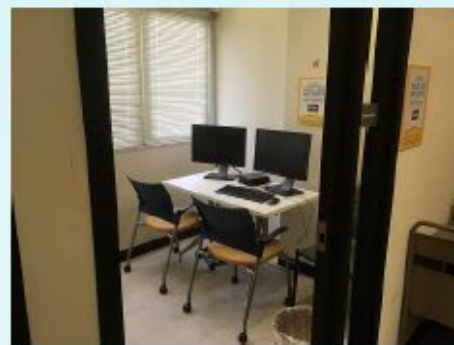
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\$S and time for installation and ongoing support?

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Will students use the technology?

**Looking at the costs - 2017**



### Collaboratories

- 4 semi-enclosed spaces
- Computer, movable large monitor, whiteboard, and a table with 6+ chairs

### Large Rooms

- 2 large rooms
- Computer, movable large monitor, whiteboard, and a table with 12 chairs

### Cubicles

- 8 semi-enclosed spaces
- Computer, wall-mounted monitor, whiteboard, and a table with 4+ chairs

### Small Rooms

- 11 small rooms
- Computer, dual monitors, whiteboard, and 2 to 3 chairs

### Booths

- 6 spaces
- Computer or connection cables, wall-mounted monitor, seating for 4

# 2018 Observational Study

- Designated group study spaces
- Contain library-provided technology
- 31 spaces, 5 configurations

# Recording observational use

- Qualtrics form, on an iPad:

T2 - Room 265

# present

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Using Library Tech  Using Own Tech  Not Using Tech

# Analyzing Results

Exported from Qualtrics to Excel for analysis

Comparison Value	Collaboratories		Large Rooms		Cubicles		Small Rooms		Booths	
# of Spaces	4		2		8		11		6	
Total Views	320		160		640		880		480	
<b>Space in Use</b>	181	<b>56.6%</b>	111	<b>69.4%</b>	354	<b>55.3%</b>	495	<b>56.3%</b>	362	<b>75.4%</b>
by 1 user	29	16.0%	18	16.2%	92	26.0%	355	71.7%	208	57.5%
by 2+ users	152	84.0%	93	83.8%	262	74.0%	140	28.3%	154	42.5%
Using Both Library & Own Tech	66	36.5%	16	14.4%	69	19.5%	81	16.4%	13	3.6%
Only Using Library Tech	21	11.6%	5	4.5%	42	11.9%	276	55.8%	4	1.1%
Only Using Own Tech	74	40.9%	65	58.6%	199	56.2%	76	15.4%	302	83.4%
Not Using Tech	20	11.0%	24	21.6%	44	12.4%	62	12.5%	43	11.9%
<b>Total Library Tech Use</b>	87	<b>48.1%</b>	21	<b>18.9%</b>	111	<b>31.4%</b>	357	<b>72.1%</b>	17	<b>4.7%</b>
by 1 user	7	8.0%	0	0.0%	15	13.5%	261	73.1%	4	23.5%
by 2+ users	80	<b>92.0%</b>	21	<b>100.0%</b>	96	<b>86.5%</b>	96	<b>26.9%</b>	13	<b>76.5%</b>

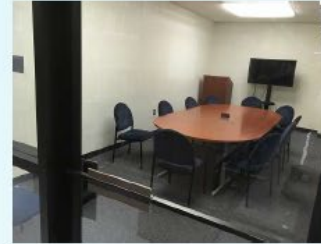
# Graphing for Visual Distribution

## Group Study Space Configurations & Findings



### Collaboratories

- 4 semi-enclosed spaces
- Computer, movable large monitor, whiteboard, and a table with 6+ chairs



### Large Rooms

- 2 large rooms
- Computer, movable large monitor, whiteboard, and a table with 12 chairs



### Cubicles

- 8 semi-enclosed spaces
- Computer, wall-mounted monitor, whiteboard, and a table with 4+ chairs



### Small Rooms

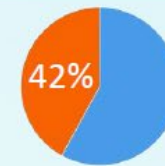
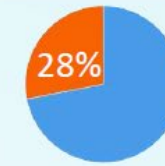
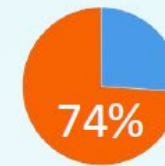
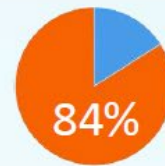
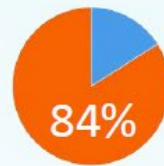
- 11 small rooms
- Computer, dual monitors, whiteboard, and 2 to 3 chairs



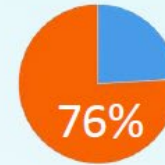
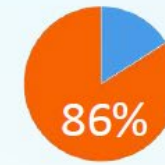
### Booths

- 6 spaces
- Computer or connection cables, wall-mounted monitor, seating for 4

### What percent was group use - when the space was occupied?



### What percent was group use - when the library technology was being used?





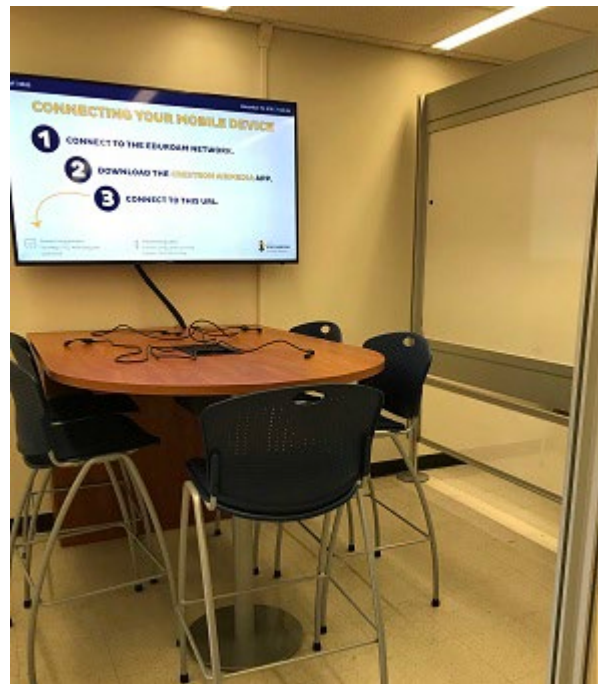
# 2018 Recommendations

- Booths are not effective for library-installed technology
- Group spaces - seating for 4 or more is preferred
- Semi-enclosed spaces are preferred for library-installed technology use
- Add more small group rooms
  - ✓ individuals will use them more than groups
  - ✓ library-installed technology is heavily used

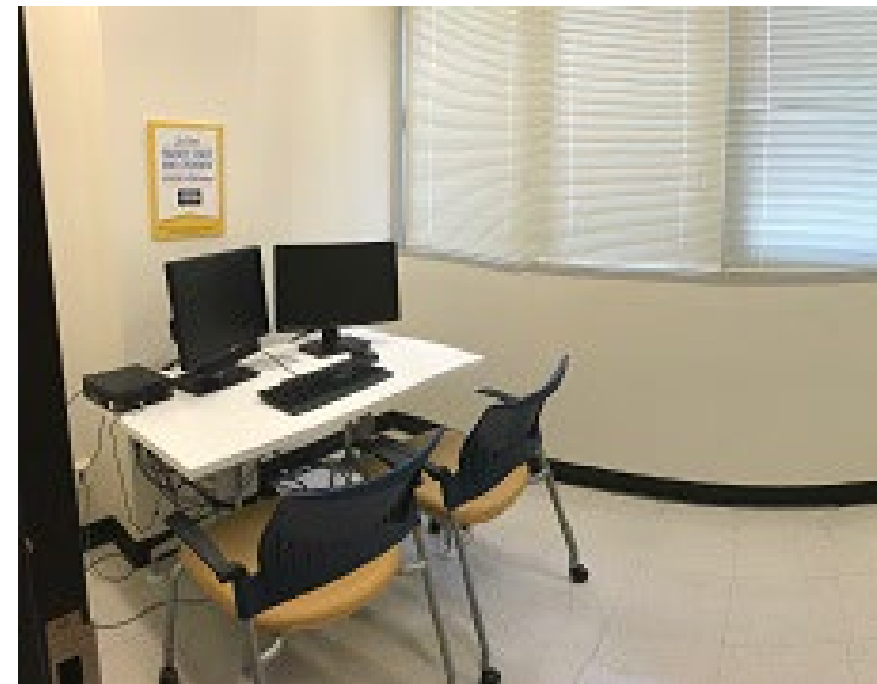




**Large**



**Medium**

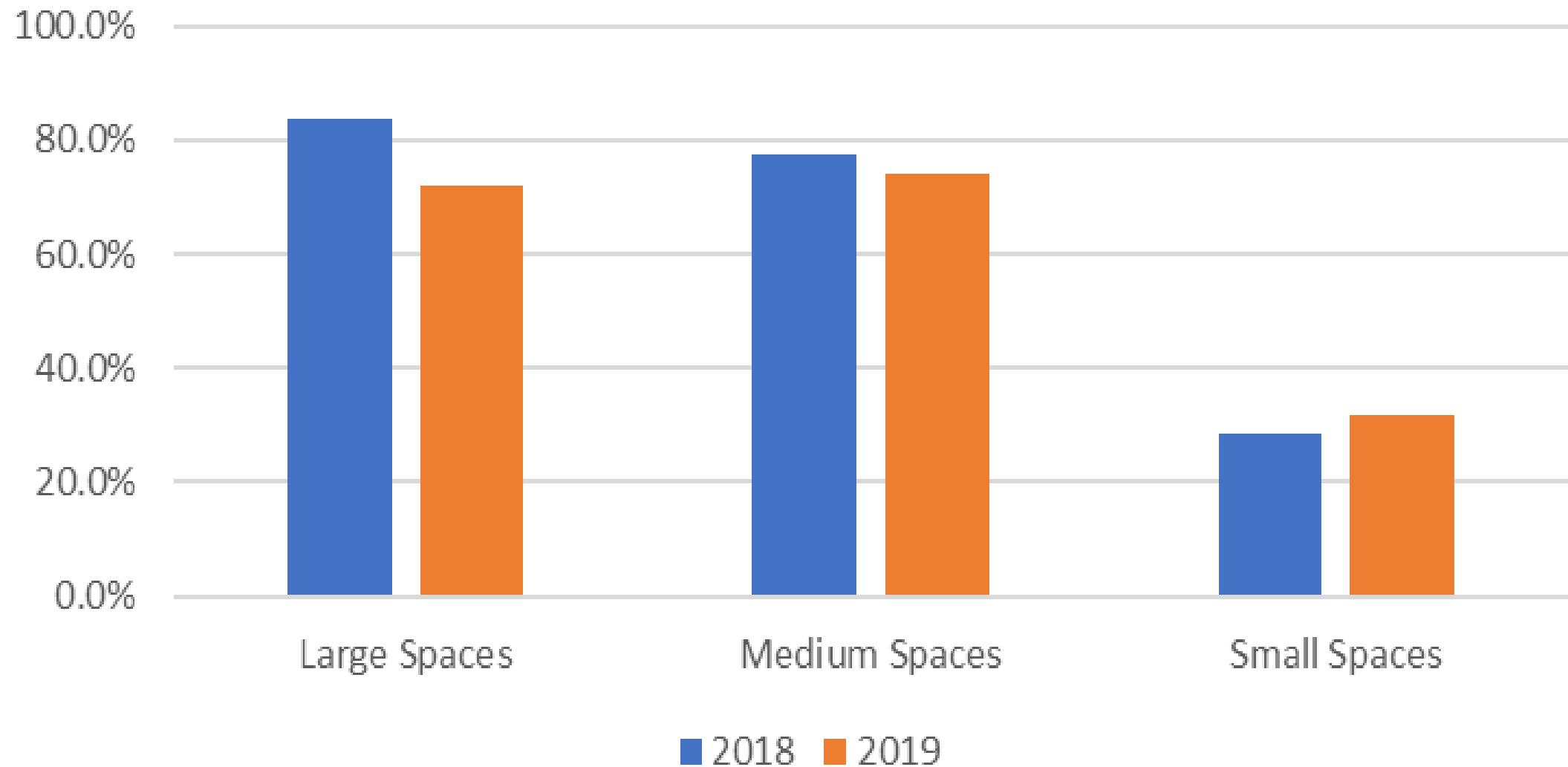


**Small**

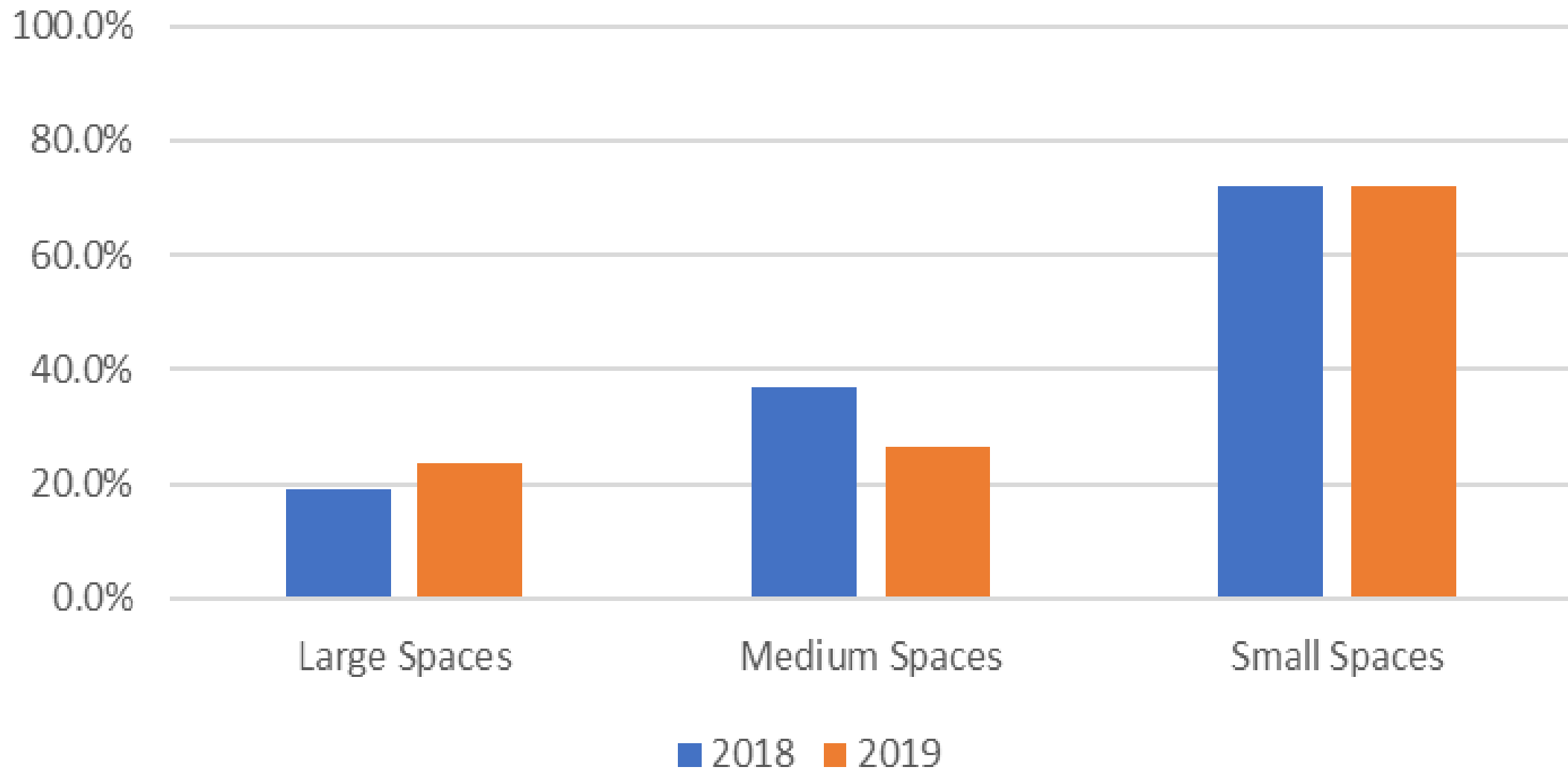
## 2019 Follow-Up Observational Study

- Simplified to large/medium/small group spaces
- Contain library-provided technology
- 25 spaces, multiple configurations

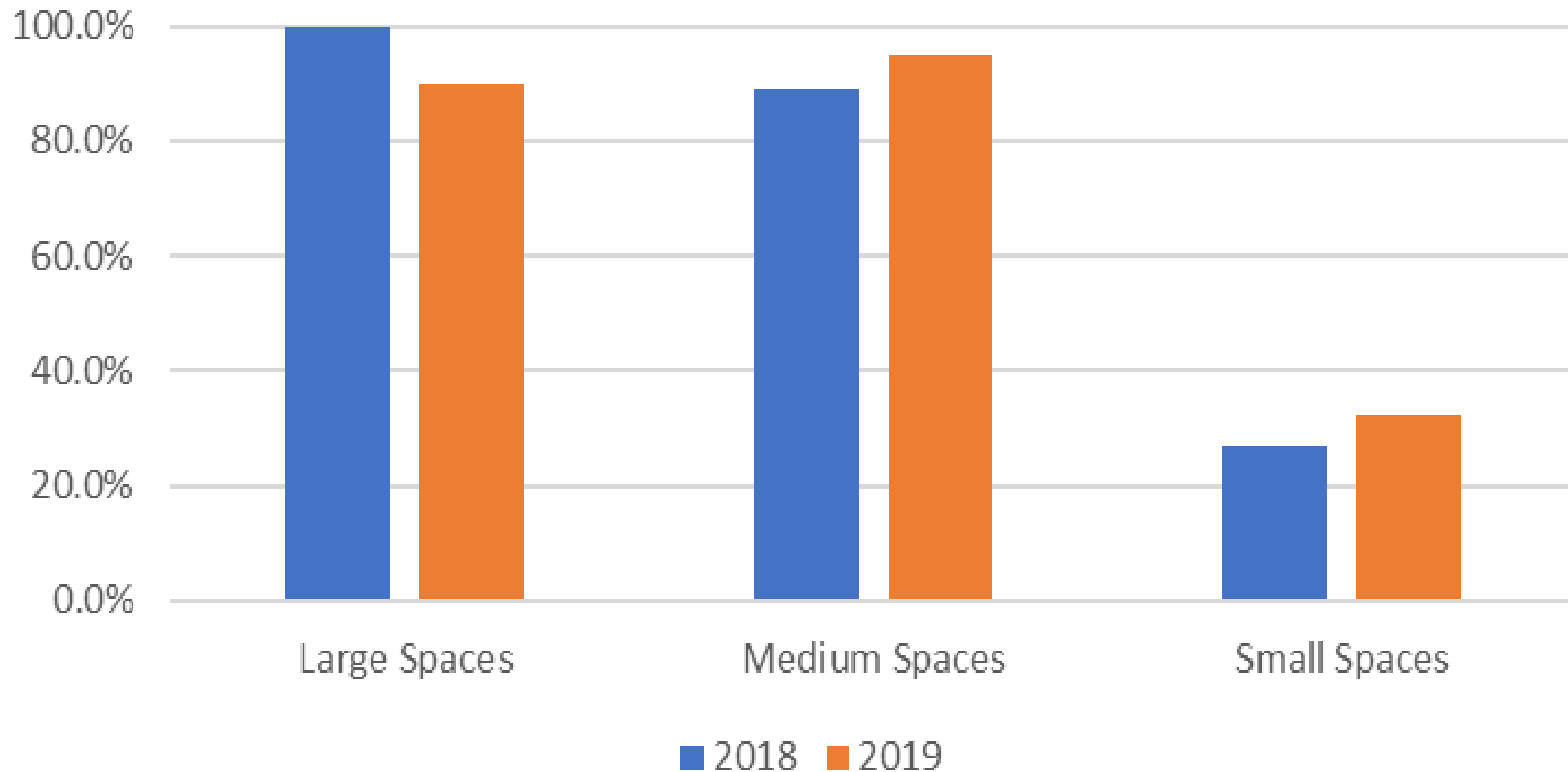
# When the spaces were being used, how often were they used by Groups?



When the spaces were being used, how often was the Library Tech being used?



# When the Library Tech was being used, how often was it being used by Groups?





# 2019 Results

- Comparing 2018 to 2019, the use of library-provided technology within group spaces is *about the same* (confirmation of initial results)
- Technology-enabled group spaces continue to be heavily used
- Use of AirMedia devices instead of installed PCs did not result in much change in technology use
- Technology in small group spaces is heavily used (but more so by individuals)





What are  
*YOU* doing with  
technology in  
library spaces?

Let's chat.

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