

SDSU Campus Network

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Mitchell Wilber &
Adam Stammer

Behaviour and Information Technology (2002)

- Surveyed students and professors at 166 universities
- Computer Experience
- Perceived Value
- Ease of Use

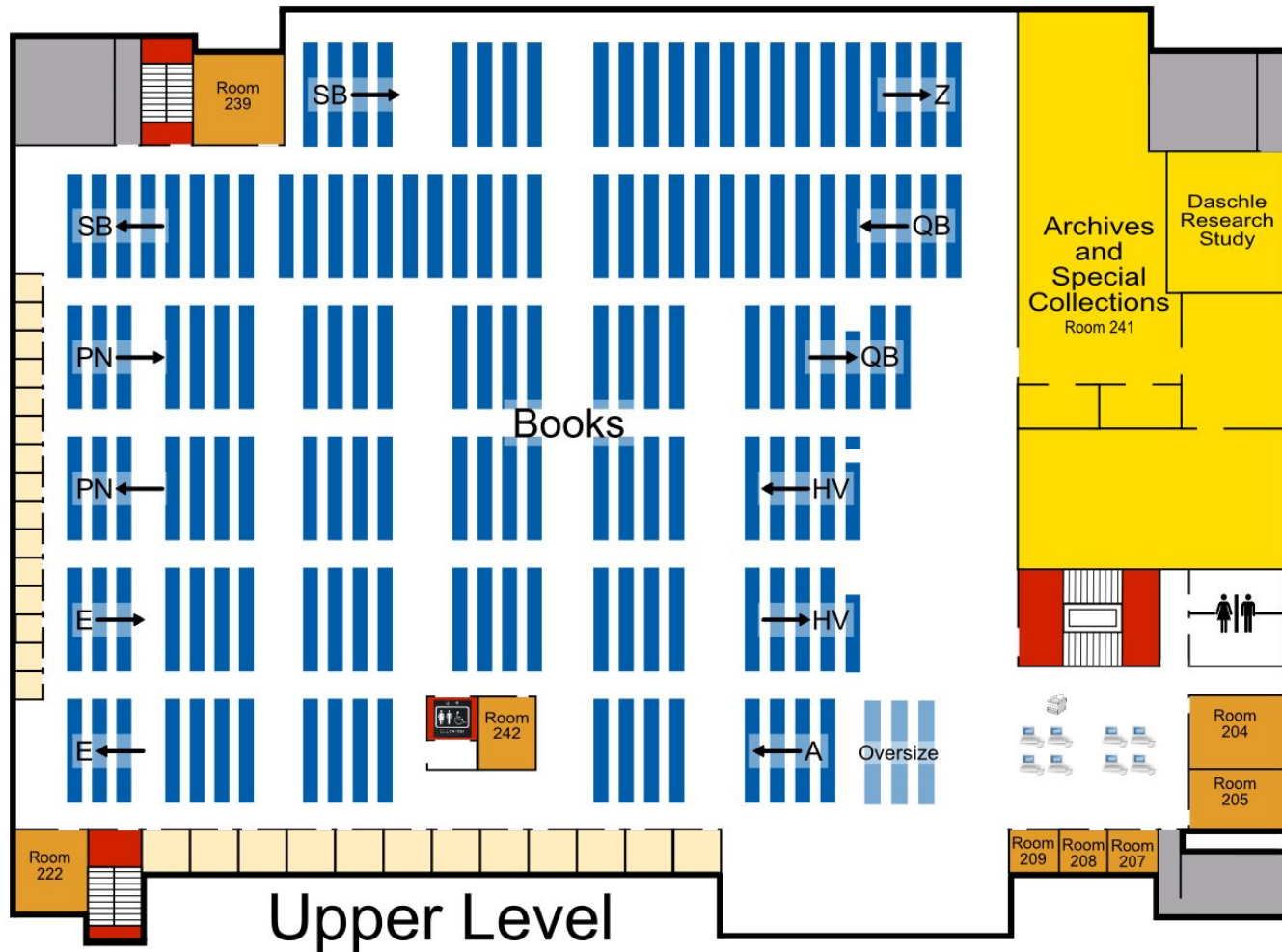
International Journal of Mental Health and Addiction (2017)

- 96% of University Students polled use the internet
- Positive impact outweighs the negative

THE PROBLEM

Methods of Measurements

- ZTE Axon Pro (Android 6.0.1)
- “Wifi Analyzer” by farproc
 - Signal Strength (dBm)
- “Speedtest by Ookla” by Ookla
 - Download/Upload Speeds (Mbit)
 - Latency (ms)
 - Jitter (ms)



Briggs Library

| Location | Best Strength (dBm) | Download (Mbits/sec) | Upload (Mbits/sec) | Ping (ms) | Jitter(ms) | Rating |
|--------------------|---------------------|----------------------|--------------------|---------------|---------------|----------------|
| South Study Rooms | -75 | 1.06 | 0.11 | 3 | 4 | Not Acceptable |
| South Study Rooms | -80 | No Connection | No Connection | No Connection | No Connection | Not Acceptable |
| South Center Desks | -58 | 6.66 | 15.7 | 2 | 10 | Acceptable |
| South West Desks | -72 | 7.8 | 20.8 | 1 | 43 | Acceptable |
| West Study Rooms | -76 | 1.54 | 0.32 | 52 | 79 | Not Acceptable |
| North Desks | -68 | 0.75 | 0.45 | 3 | 1313 | Not Acceptable |

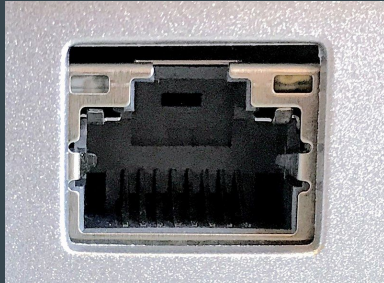
SDSU Wellness Center

| Location | Best Strength (dBm) | Download (Mbits) | Upload (Mbits) | Ping (ms) | Jitter(ms) | Rating |
|-----------------------|---------------------|------------------|----------------|---------------|---------------|----------------|
| South Side Machines | -83 | 0.3 | 0.07 | 5 | 1078 | Not Acceptable |
| Northwest Corner | -76 | .48 | .11 | 12 | 28 | Not Acceptable |
| Northeast Corner | <-90 | No Connection | No Connection | No Connection | No Connection | Not Acceptable |
| Southeast Corner | -46 | 34.5 | 40.2 | 2 | 0 | Acceptable |
| Center Water Fountain | -79 | No Connection | No Connection | No Connection | No Connection | Not Acceptable |
| Front Lobby | -77 | No Connection | No Connection | No Connection | No Connection | Not Acceptable |



Ethernet

- Briggs
- Student Union
- Brown Hall



THE SOLUTION

Increase Coverage

- Add more routers throughout areas of limited coverage
 - Emphasize areas of (potential) common internet use
- Activate ethernet ports in common areas
 - Day rooms
 - Student Union
 - Briggs walk-in study rooms

Measure Success

- View statistics of network use
 - Look for increase/decrease in use
 - Changes in type of use
- Retest coverage
 - Look for increase/decrease in coverage and speeds

References

- Afzaal H. Seyal, Mohd. Noah Abd. Rahman & Md. Mahbubur Rahim. (2010) Determinants of Academic Use of the Internet: A Structural Equation Model, Behaviour & Information Technology, 21:1, 71-86, DOI: [10.1080/01449290210123354](https://doi.org/10.1080/01449290210123354)
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- Rayan, A., Dadoul, A.M., Jabareen, H. et al. Int J Ment Health Addiction (2017) 15: 118.
<https://doi.org/10.1007/s11469-016-9658-2>

QUESTIONS?