# Closing the Digital Divide through LEAP-Links (Digital Literacy)*

**Rebecca E. Turnbow**
Macquarie University, Widening Participation Unit, Sydney, NSW 2109
rebecca.turnbow@mq.edu.au

**Maimuna Musarrat**
Macquarie University, Widening Participation Unit, Sydney, NSW 2109
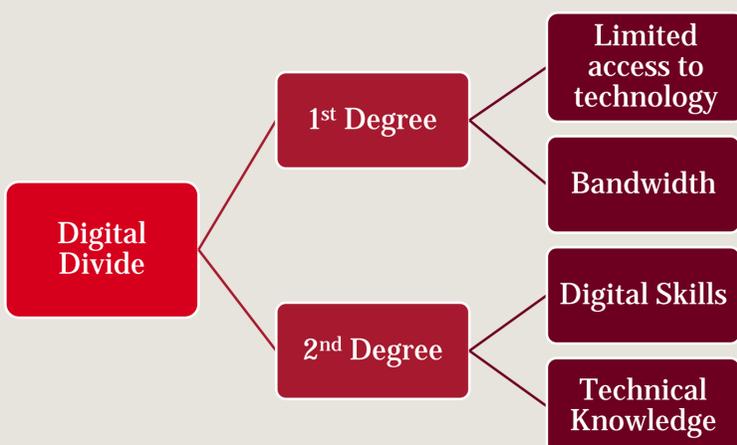muna.musarrat@mq.edu.au

## INTRODUCTION

### Digital Divide

The 'digital divide' is often thought of as a single chasm, but as technology is ubiquitous in daily life, describing this gap becomes far more complex.

Researchers attempt to expand upon it by adding degrees to the divide. The first and second are commonly known (see diagram) and more are emerging.[1]

- Digital Divide
  - 1st Degree
    - Limited access to technology
    - Bandwidth
  - 2nd Degree
    - Digital Skills
    - Technical Knowledge

### Complexity in Education

In education, there is a gap in skill among teachers, students, parents and administrators, as well as between schools.

Factors adding to the complexity of the divide in the classroom include:
- Social stereotypes surrounding gender and technology;
- Economic disparity; and
- Social capital disparity.

### Regional Schools

Regional and remote schools face unique challenges in closing the divide resulting from geographical isolation, including:
- Single retail outlets to purchase computers or data plans;
- Little to no influx of new teachers;
- Limited access to tech related professional learning opportunities for teachers; and
- Parents' negative views regarding device use in classrooms. [2]

## RESEARCH

Our aims are to understand the perceived digital competency of students transitioning from high school into university and to identify the gaps in key digital skills.

### Method

Over two weeks, the Widening Participation Unit recruited Macquarie University students who graduated high school in NSW to complete an online survey on the use of digital technologies for learning.

81 students completed the survey. 12 were excluded because they completed HSC prior to 2012. We analysed data of 69 students, nine graduating from regional high schools and 60 from metro area high schools in NSW.

### Findings

"High School prepared me for the digital technology requirements of university."

Pie chart:
- Strongly Disagree 6%
- Disagree 14%
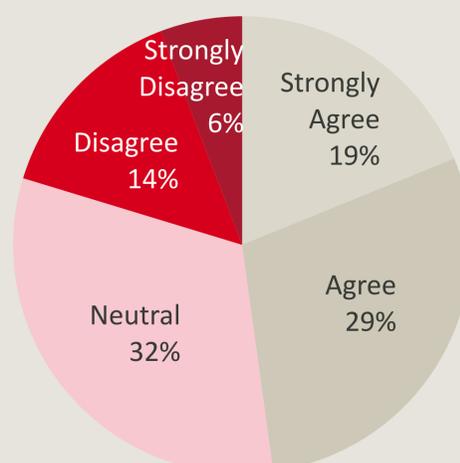- Neutral 32%
- Agree 29%
- Strongly Agree 19%

**What digital skills do you wish you had learned before coming to university?**

"Google docs could be used more at high school, I didn't have many group assignments at high school but google drive & docs has become essential with communication at University." - Year 2 University Student

"Uni seems to think we all know and are able to do, but it [sic] takes me a couple hours to find out what on earth they're talking about." - Year 3 University Student

### Further Debate

**What role do universities play in bridging the digital divide?**

Universities invest heavily in building robust, technology-rich courses. High schools simply do not have the time or scale to do so.
- What support is need to ensure a smooth transition from high school to the digital learning environment of university?
- Is this digital transition a key factor in student success and retention?

### Our Program

To learn more about our program, LEAP-Links (Digital Literacy), contact us.

Rebecca Turnbow, Project Coordinator
(02) 9850 7335

Muna Musarrat, Project Assistant
(02) 9850 7347

## References

1. Alam, K., & Salahuddin, M. (2015), Assessing Digital Divide and its Determinants: A Case Study of Households' Perception in the Western Downs Region of Queensland, Australian Centre for Sustainable Business and Development, University of Southern Queensland, Toowoomba.
2. Turnbow, R., Masarrat, M. & Morrison, C. (2017) NPP LEAP Links (Digital Literacy): Preliminary Findings: Regional and Remote Teacher Interviews, Widening Participations Unit, Macquarie University. Unpublished raw data.