



Understanding Students' Information Behaviours: Exploring the Digital Ecology

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Also – check out Associate Professor Catherine Gomes' amazing work.

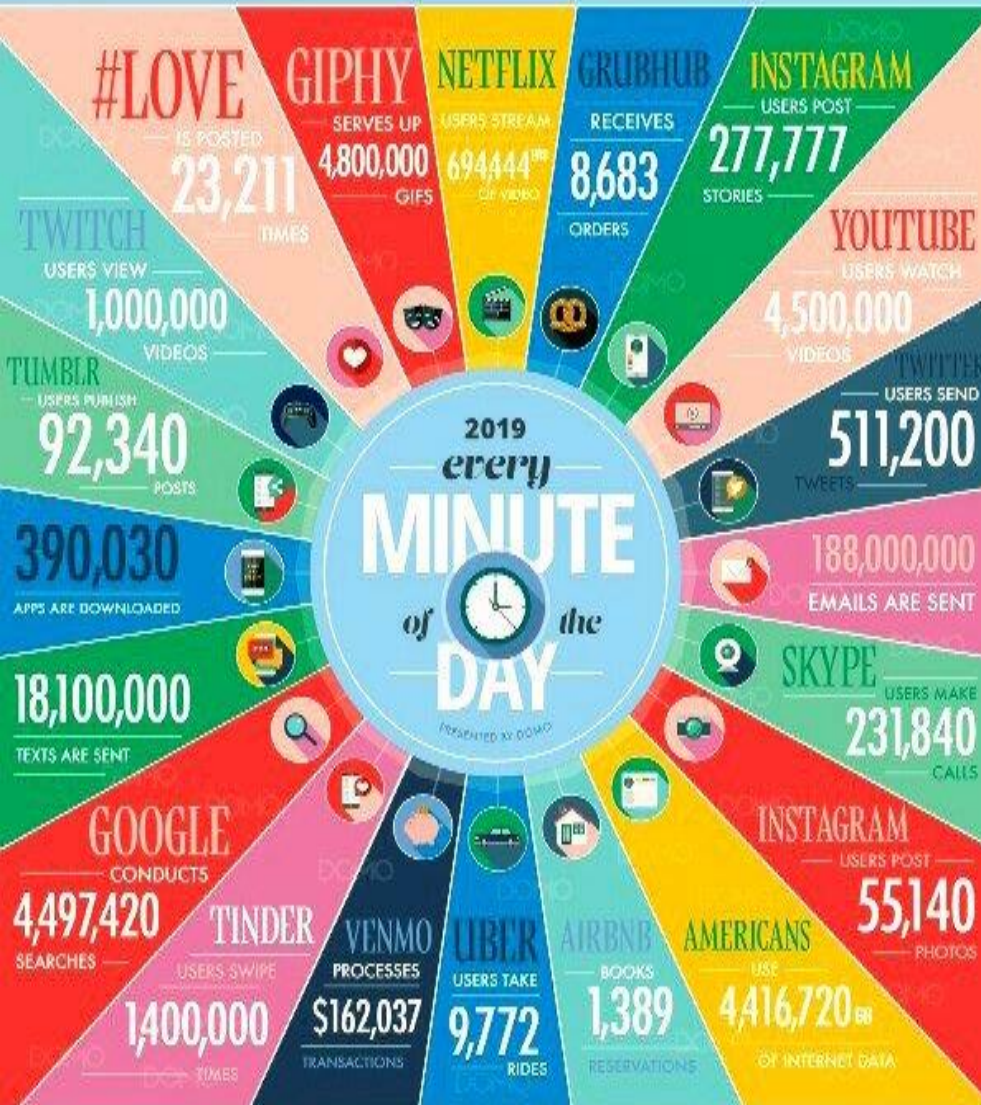
Happy to Connect on LinkedIn!



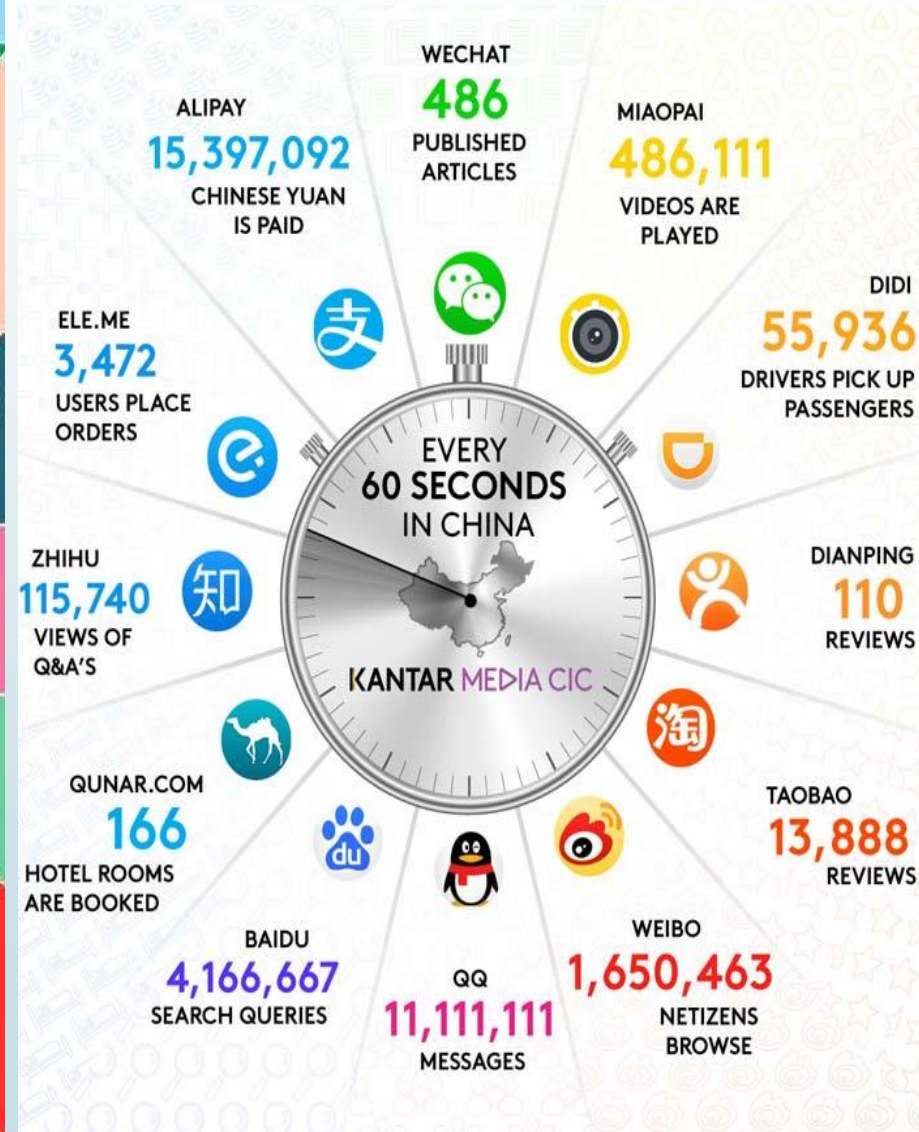
DATA NEVER SLEEPS 7.0

How much data is generated every minute?

There's no way around it: big data just keeps getting bigger. The numbers are staggering, and they're not slowing down. By 2020, there will be 44x more bytes of data than there are stars in the observable universe. In our 7th edition of Data Never Sleeps, we bring you the latest stats on how much data is being created in every digital minute.



How is the World Changing?





What are Digital Echo Chambers?

- “Is the expansion of media choice good for democracy? Not according to critics who decry “echo chambers,” “filter bubbles,” and “information cocoons” — the highly polarized, ideologically homogeneous forms of news and media consumption that are facilitated by technology. However, these claims overstate the prevalence and severity of these patterns, which at most capture the experience of a minority of the public. ”

(Knight Foundation Report: Guess, Lyons, Nyhan, & Reifler, 2018)



At the same time...

- ▶ According to another report from the same Knight Foundation on “Black Twitter”, “Asian Twitter” and “Feminist Twitter”:
- ▶ **“Participants bypass mainstream media as a news source:** *Some community members use Twitter as a curated news source to avoid problematic portrayals by mainstream media outlets.”*
- ▶ **“Participants tend to share news content that covers their community’s high-visibility Twitter activities:** The data revealed feedback loops in which participants created compelling Twitter content, media outlets covered it, and the community then circulated the media coverage of its own content.”

(Clark, Freelon, Jackson & Lopez, 2018)

But not everyone is 'equal' on social media

Online Participant Role	Example SNS Features
Reader / Member Lurkers	Entry and exit, View, Browse, Search
Contributor Likers	Rate, Tag, Review, Post, Upload
Collaborator Linkers	Establishing relationships, Cooperating, Collaborating, Communicating
Leader Leaders	Promoting, Mentoring, Governing

Table 1: Site features according to role (adapted from Preece and Shneiderman, 2009)

If there is so much information out there, why aren't we more educated or informed as a society?

Recognised and Demanded Information Needs	Recognised and Undemanded Information Needs
Unrecognised and Demanded Information Needs	Unrecognised and Undemanded Information Needs

Alzougool, Chang and Gray (2013)

But how do people access this information even when they do get to our sites?

Extensive Research Low Reading	Extensive Research High Reading
Basic Research Low Reading	Basic Research High Reading

Differences in Digital Environments between Home and Host Country

The image displays a collage of digital interfaces from three different countries, illustrating differences in digital environments:

- Japan (Top Left):** Shows the ICHIBAN (楽R天) website with a navigation bar in Japanese, a search bar, and various product categories like 'ランキング' (Ranking) and 'おすすめ' (Recommended).
- China (Top Middle):** Shows the Taobao.com Australia website with a search bar, navigation bar, and a large promotional banner for '女装会场' (Women's Fashion Fair) with a 50% discount.
- South Korea (Top Right):** Shows a mobile interface with a navigation bar, a search bar, and a large promotional banner for 'XX twenty-six'.

The collage also includes a Windows taskbar at the bottom left and a 'Lonely' watermark at the bottom right.



Digital Journeys

- Digital Journey ‘refers to the transition that an individual makes online from relying on one digital bundle of sources to the other new bundle, perhaps based on the new host country or internationally’ Chang and Gomes (2016, 2017).
- *Derived from:*
 - *10 (+ 6) Focus Groups in Australia, Netherlands, USA,*
 - *more than 60 interviews in Singapore and Australia, and*
 - *a Survey of 6699 international students studying in Australia*
 - *Works and Projects of my various students*

A dark grey arrow points to the right from the left edge of the slide. Below it, several thin, curved lines in shades of blue and grey sweep across the left side of the slide.

Self-Identity

- ▶ Role: Who am I?
- ▶ Online Tribes: Who are my people? Is there anyone in the new digital environment I can trust?
- ▶ So it comes down to the diversity of students and recognising different skill levels, attitude, perspectives and tolerance for ambiguity



Making the Journey

- Convenience and Comfort Zone: Online, people choose what is easiest to do, but how do we help students moderate that?
- Safety and Trust: Do sojourners trust new sources of information when previous home sources have served them so well? Would they trust new resources?
- Emotional Attachment: Emotional attachment and loyalty to digital sources of information are very real. This is further enhanced by the community that they might have built online in home countries.
- Devices and Platforms: Does the digital journey include a shift in the use of different devices? What does it mean to be using a different platform in a host country? What are the technological impacts of trying to access new sites via new devices and platforms?
- Digital Skills: Do the sojourners have the digital skills to be able to transcend new sites and new information systems and language online?

CONTACT POINTS

Enabling international students
during critical incidents



Catherine Gomes, Shanton Chang, Manorani Guy, Franklin Patrao, Siying (Ashley) He





Principles

Understanding International Students' information seeking / encountering behaviours

What you don't know you need, is as important as what you think you need

Students need to understand both the context and the language of messages

Messages have to be refined for clarity

Data saturation rules apply for the workshops





Priorities

More examples:

‘Call 000 in an emergency’

‘What type of emergency? What different numbers? Isn’t it 999?’

‘Do not leave valuables in a public space’

‘But school library is not public!’



Digital Ecologies



- **Information Topics or Needs** – including what topics of information students are looking for, such as everyday life information (accommodation, transport, food), academic information (related to the completion of studies), social information (such as activities and social events), and health information (Binsahl, Chang & Bosua, 2015; Garza, 2015; Sin, 2015).
- **State of Information Needs** – including whether the international student have clear recognition of a need for information and therefore are actively seeking information, or if the need is dormant, through lack of realisation that they need the information or some other reason (Chang and Gomes, 2017a; Chang and Gomes, 2017b)



Digital Ecologies



- ▶ **Motivation driving Information Needs** (Binsahl et al, 2019) – including what are the motivations of international students that drive them to seek out particular information. In some papers, this has been classified as information needs.
- ▶ **Information Behaviors** – looking at international students behaviors in relation to disseminating and sharing and creating (Esfahani & Chang, 2012; Oh, Butler & Lee, 2014; Bukhari, Hamid, Ravana & Ijab, 2018)



Digital Ecologies



- ▶ **Information Channels** - looking at social media, websites, or direct chats using messenger apps (Chang, Alzougool, Berry, Gomes, Smith & Reeders, 2014)
- ▶ **Information Sources** – looking beyond channels to what types of websites, social media or apps are being used by international students, including where these sites are hosted (Chang, Alzougool, Berry, Gomes, Smith & Reeders, 2012; 2014)). Another way of looking at Information Sources is to explore the roles of Information Agents who are the people who provide the information. Information Agents could include friends, family, education agents, support service staff, faculty and teachers, governments or strangers.
- ▶ **Information Format**—from social advice in person or over digital chat to official information on websites in text form.

Some further Readings

- Chang, S. & Gomes, C. (2017) International Student Identity and the Digital Environment. In B. Kappler Mikk & I. Steglitz (eds.) *Learning across cultures: Locally and globally* (3rd edition). NAFSA, Washington D.C.
- Chang, S. & Gomes, C. (2017) Digital Journeys: A Perspective on Understanding the Digital Experiences of International Students. *Journal of International Students*, 7(2): 347-366.
- Chang, S., Alzougool, B., Berry, M., Gomes, C., Smith, S., Reeders, D. (2012). 'Communicating with International Students: How do their social networks impact on where they go to for information?' *ISANA Conference*, 4-7 December 2012, Auckland.
- Gomes, C., Berry, M., Alzougool, B., Chang, S. (2014). 'Home Away From Home: International Students And Their Identity-Based Social Networks In Australia'. *Journal of International Students*, Vol 4, Iss. 1. 2014
- Weiss, M., Ford, M. (2011). 'Temporary Transnationals: Southeast Asian Students in Australia'. *Journal of Contemporary Asia* 41 (2): 229-248.
- Eric M. Meyers, Ingrid Erickson & Ruth V. Small (2013) Digital literacy and informal learning environments: an introduction, *Learning, Media and Technology*, 38:4, 355-367

