

Growing up Digital: Implications of Living, Communicating, and Learning with Technology for Adolescent Development

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Concerns not new.....

Writing

Printing press

Crosswords

Radio & Film, &
Television

Video games, Internet,
Computers and Tablets

“Create forgetfulness in the learners’ souls, because they will not use their memories”

Living life online –Creating new behaviors?

Studies at CDMC @LA

- Chat studies*
 - 12,000 utterances & 1,000 nicknames/screen names
- Blog studies**
 - Blog entries and user nick names analyzed
- Social networking studies***
 - Compared online and offline networks
 - Survey measures
 - Analyzed pictures + wall posts on Facebook

Results

- High levels of peer interaction in the service of developmental tasks
 - Identity
 - Sexuality
 - Establishing intimate relationships
- Offline and online are psychologically connected
 - Not mirror images
 - Old behaviors, new forms – often exaggerated

[e.g., *Subrahmanyam, Smahel, & Greenfield, 2006; **Subrahmanyam et al., 2009; ***Subrahmanyam, et al., 2008; Reich et al., 2012; Michikyan et al., 2014a; Michikyan et al., 2014b; Michikyan et al., 2015]

Communicating online

Offline peer interactions & well-being

- Source of intimacy, support, but also victimization
- Positive relation between quality of offline peer interactions & well-being*

Digital peer interactions

- Provide support
- Risk of peer victimization
- Relation to well-being
 - Positive, negative, & no associations**

[* Denissen et al., 2008; **e.g., Kim & Lee, 2011; Kross et al., 2013]

Digital peer communication and youth well-being

Variables that matter*

- Use variables
 - Multitasking (MT)
 - Quality of digital interactions
 - Online Content
 - Health related websites and bulletin boards
 - Alcohol and other substance use content on social media
- User variables
 - Social anxiety
 - Social support

■ Use X User variables

[*Frison, Subrahmanyam, & Eggermont, 2016; Hatchel, Negriff, & Subrahmanyam, 2018; Subrahmanyam, Frison, & Michikyan, 2018; Subrahmanyam, Frison, & Michikyan, 2018; Weeks, Subrahmanyam, et al., 2018]

Digital peer communication and youth well-being

Multitasking*

High rates of MT positively associated with self-esteem and positive affect, but only for those reporting high levels of social anxiety

Negative experiences on Facebook **

Depression @ T1 predicted negative FB experiences @T2, but only at low levels of perceived friend support

F2f vs. text messaging ***

Quality predicts same-day well-being for both f2f and text messaging; stronger @ higher levels of social anxiety

Alcohol images on social media ****

Increased cravings for alcohol, but only for those who reported prior alcohol use

[*Hatchel, Negriff, & Subrahmanyam, 2018; **Frison, Subrahmanyam, & Eggermont, 2016; ***Subrahmanyam, Frison, & Michikyan, 2018; **** Weeks, Subrahmanyam, et al., 2018]

Learning with technology

MT

- No effect of reading medium or MT on lab-based reading comprehension tasks^{*}, ^{**}
- Robust effect of MT on reading efficiency^{**}
- Multitasking may disrupt learning when task is novel and cognitive load is high^{***}

Future directions

- Effect of constant distraction on deep thinking, creativity, etc.?
- Learner characteristics – Age, at-risk students
- Social anxiety, multitasking and learning
- Searching for information, assessing source credibility, etc.

[*Tran, Carrillo, & Subrahmanyam, 2013; **Subrahmanyam, et al., 2014; ***Carrillo, & Subrahmanyam, 2018]

Conclusions & Wrap-up

Communicating online and well-being?

Some youth may benefit more than others

Need more longitudinal work

Digital effects more transient

Learning and technology?

Mindful use of technology

Multitasking & brain development?

Thank You

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