Designing Meaningful Experiences for Digital Natives

Choice-ACRL Webinar
Introduction

Presenters

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“Digital Native”

A person who has grown up in the information age with the presence of modern, digital technologies.
Introduction

01 — Who is Gen Z?
02 — Who is Gen Alpha?
03 — Devices, Then and Now
04 — Digital Natives as Learners
05 — Designing for Digital Natives
Introduction

Sources

1. Digital Natives Survey

Better understand how digital natives use technology for both educational and recreational learning purposes.

• 92 responses
• Most respondents between ages 10-26
• Between 2/21/23 and 3/5/23

2. Secondary sources

Research conducted by non-Clarivate agencies from around the world, including studies, reports, surveys, and statistics.
Introduction

The Generations
Introduction

The Generations

Silent
- Ages 78-95
- Hard-working, patriotic, and compliant

Gen X
- Ages 43-58
- Independent, flexible, and self-reliant

Gen Z
- Ages 11-26
- Collaborative, pragmatic, and authentic

Boomer
- Ages 59-77
- Prosperous, gloomy, and dissatisfied

Millennials
- Ages 27-42
- Self-centered, accepting, and progressive

Gen A
- Ages 10 & under

01

Gen Z
Gen Z

Demographics

Born 1997 — 2012

Ages 11 — 26

US Population

68 million

48%

are non-white

**Major events**

**9/11**
- War on terror
- Big surveillance
- Immigration policies
- Travel restrictions

**Great Recession**
- Sharp decline of economic activity with global impact

**Arab Spring**
- Use of technology to oppose (and overthrow) long-held powers

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**2001**
- BP oil spill
- Environmental awareness
- Corporate responsibility

**2005**
- Hurricane Katrina
  - Devastated Gulf Coast
  - Massive relief and rebuilding efforts

**2007-2009**
- Great Recession

**2009**
- Pres. Obama
  - First African-American president

**Early-2010**

**Mid-2010**
- BP oil spill
  - Environmental awareness
  - Corporate responsibility

**2005**
- Great Recession
- Arab Spring
- BP oil spill
The latest

news, events, opinions, music, and media from around the world

64%
check Instagram once a day

54%
spend 4 hours a day on social media

https://explodingtopics.com/blog/gen-z-stats
https://morningconsult.com/2022/12/12/gen-z-social-media-usage/
Gen Z

Parents

Gen X

“Latchkey Kids”

Values

Independence, resourcefulness, and cynicism

Parenting style

Involved
Gen Z Values

Authenticity
Reflect true self both in person and online

Flexibility
in an ever-changing world with endless options

Collaboration
Always working together
“Nearly every single person said their favorite form of communication was “in person.””
Gen Z
Characteristics

Pragmatic
Focus on practical steps to achieve desired outcome

Self-reliant
Powerful digital tools allow them to easily navigate the world

Globally-conscious
Both aware and active when it comes to social, political, and environmental issues
“

They also look at their purchasing decisions as an expression of their values and identity.

”
02

Gen Alpha
Demographics

Ages 10 and under

Born 2010 —

US Population

~50 million

Race

Expect increasing diversity
Major events

#BlackLivesMatter
- Political and social movement

Pres. Trump
- Election of businessman and TV personality
  - “Make America Great Again”

COVID-19
- Global pandemic
- Mask requirements and vaccine mandates

Paris attacks
- Major terrorist attack, among others that year

#MeToo
- Widespread media coverage leading to resignations, firings

Roe vs. Wade
- Overturned after nearly 50 years
Millennials

“Snowflakes”

Values

Work-life balance, education, and equality

Parenting style

Controlled

https://www.kindercare.com/content-hub/articles/2016/may/millennial-moms-dads-6-ways-theyre-raising-kids-differently
Gen A
Values

To be determined...
“Being hyper-connected, they become experts in the use of new technologies, which facilitates their digital learning and opens up a wide range of possibilities.”
03

Devices, Then and Now
Devices

Speed

Back then...

*This file might take a while to download...*

Today

*This is taking forever...*  
(for anything)
Storage

Back then...

_I ran out of memory..._

Today

*I can capture, create, and share as much as I want.*
Device

Mobility

Back then...

*Let me post an away message.*

Today

*I don’t go anywhere without my phone.*
Search

Back then...

*How do I speak the computer’s language...*

Today

*Why doesn’t Google know what I’m looking for?*
Device capabilities empower not only different uses but also different attitudes and expectations.
Digital Natives as Learners

Future generations poised to be disruptors
Digital natives in school

- **Gen Z**: Roughly 6th grade and up

- **Gen Alpha**: Just finishing elementary school

- Social-emotional learning support at school more important than ever

Diverse classrooms

- Last generation in America that’s predominantly white*

- Roughly 30% know someone who uses gender-neutral pronouns**

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*According to 2022 US Census

** According to Pew Research

Open to new digital learning experiences

- Experienced online/hybrid classes at a young age
- Smoothly transitions between online and in-person connectedness for learning
- Most digitally creative generation to date
- 61% of Gen Z believe that video and photos help them express what they want to say better than words
The hardest part about making YouTube Shorts is coming up with the idea for the video. The easy part is creating and posting it.

- my ten-year-old son
Gen Z values will drive their decisions and behaviors

**Economic stability is an important value**
- In a survey of 2017 graduates, 88% said that job availability informed their choice of major*

**The costs of textbooks caused...**
- 86% to delay purchase
- 37% to drop a course
- 21% to register for fewer courses

*According to the World Economic Forum
Digital Natives Survey

Overview

92 responses
Between 2/21/23 and 3/5/23

Most ages 10-26
Targeted those in educational settings

Online learning behaviors
Better understand how digital natives use modern technology for learning, both for educational and recreational purposes.
Have you ever watched a video about any of these learning-related topics?
Digital Natives Survey

86% have view learning-related content on YouTube.
Where have you gone to get help with school assignments?

- A peer (friend, classmate or sibling)
- An adult (parent, family member or friend)
- An expert (tutor, librarian, etc.)
- Class resources (your teacher, books, materials, etc.)
- Social media (YouTube, TikTok, Instagram, etc.)
- Internet search (Google, Google Scholar, Bing, searching in the Safari or Chrome bar)
- A website (Wikipedia, Reddit, Danny website, etc.)
- Other
When thinking about school assignments, how helpful have each of these resources been to you?

- A peer (friend, classmate or sibling)
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How Does Gen Z Learn?

• They learn by doing

• Enjoy learning by video

• Social learning and knowledge sharing

• Personalized Learning Experiences

Source: BNCollege
A generation growing up with Artificial Intelligence

AI is sparking innovation and growth across all disciplines, including education
Disruptive technology

A catalyst for innovation
AI is already here

Seamlessly embedded into our everyday living
Generative AI in Education

GPT/‘Generative’ AI Edtech Landscape

Last updated 12/19/22

Source: Reach Capital
Some ways AI is being used in education

- Personalized learning
- Improved & real-time assessment
- Immersive learning experiences
- Equal access to quality education
- Automation of mundane admin tasks
**AI in Research**

**Elicit** – Your free AI research assistant

**Scispace Copilot** – Seamlessly discover, explore, understand, and write research

**Semantic Scholar** – AI-powered research tool for scientific literature

**R Discovery** – Creates relevant feeds for new relevant papers

**TLDR This** – Article Summary Generators

**Quilbot** – AI Writing Assistant (paraphraser)
Ask a research question

Elicit will find answers from 175 million papers.

How effective is finasteride for reducing H

Or run Elicit on your papers
Abstract: The study tested the effects of positive mood enhancement on chocolate chip cookie consumption in the context of emotional and uncontrolled eating styles. The relationship between emotional eating style and cho...read more
Benefits of AI in research

- Personalized learning
- Drastically streamline the literature discovery and review process
- Reduced time for comprehension
- Automate and simulate laboratory and research work
- Assist in the editorial process of writing (with AI writers)
- Make connections between research projects for information sharing
Potential Challenges of AI in research

- Increase in publication submissions
- Machine learning bias
- Lack of creativity
- Plagiarism and copyright issues with AI
Along comes ChatGPT...

- Launched by OpenAI on November 30, 2022
- 100 million active users within 2 months of launch
- Trained on data from internet up to 2021
AI technologies, such as ChatGPT, have the potential to radically change the way people search, find, and analyze information.
Other Generative AI Tools that anyone can use
(tip of the iceberg)

Text Generation
- ChatGPT
- ChatSonic
- YouChat

Image/Visual Generation
- DALL-E2
- Craiyon

Others
- Whisper (English speech recognition)
- SlidesAI (creates a professional google slides from text)
AI and Digital Natives

Digital Natives
Survey

18+ year olds who responded in survey
Is using ChatGPT cheating or is it just changing the way we learn?

- Are we best preparing students for life after graduation?
- ChatGPT as a supplement to learning
- ChatGPT as a tool for the teaching of critical thinking
- ChatGPT and other generative AI to teach how to differentiate between fact and opinion
- ChatGPT to demonstrate machine learning bias
20 ways to use ChatGPT in the classroom

1. Use it as a more complex source of information than Google.
2. Use it to provide students access to lots of good examples.
3. Use it to remix student work.
4. Ask it for definitions on a variety of levels.
5. Ask it for feedback for student work.
6. Ask it to do some teacher tasks for you.
7. Add it to the “think pair share” thinking routine.
8. Grade the bot.
9. Debate the bot.
10. Ask the bot for advice.
11. Use it to summarize texts.
12. Use it for insight into big, difficult-to-solve problems.
13. Ask ChatGPT to write your lesson plans.
14. Anticipate the response you’d expect from AI.
15. Take several responses and make a better product.
17. Provide tutoring or coaching.
18. Generate prompts and questions to facilitate discussions.
19. Provide information and answer questions.

Get an overview of ChatGPT in the classroom at ditchthattextbook.com/ai.
Infographic by Matt Miller (@jmattmiller / DitchThatTextbook.com)
Generative AI usage policies in schools

- To ban or not to ban

- A lot of unknowns, still figuring it out as we go (i.e. how to cite)

- Explore usage of AI tools in students’ future industries

- Gen Z wants to have a voice in usage policy (UnboundEd survey)

- Understand copyright laws for AI generated content
06

Designing for Digital Natives

Building meaningful experiences for digital natives
**Principle**

**Personalization**

*Tailor experiences to meet user needs and preferences*

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**Say my name, say my name**

“There is no sweeter sound to one's ear than the sound of his name” – Dale Carnegie

**Utilize account info**

Integrate institutional data into your systems and services

**You might also like...**

Provide recommendations based on viewing or checkout history
Principle

Interactivity

The process of two people or things working together and influencing each other

Two-way communication

Invest in digital services that allow you to share and receive

Feedback is a gift

Listen carefully to ensure you’re hearing the voice of your users

Stay in-person

Hands down preferred means of communication
Principle

Multi-spatial

Meeting users where they’re at

Mobile first

Provide mobile-friendly services

Hybrid experiences

Facilitate interactions between those in-person and online during live events

Physical ↔ Digital

• Place printed QR codes leading to digital resources
• Set up digital maps to navigate physical spaces
Principle
Multi-media

Facilitate learning through a variety of mediums

Think outside the (text)box
Images, audio, video, or combinations

Let’s explore
3D, immersive hands-on or game-like experiences

Transcribe
Ensure all mediums are accessible as well as searchable
Principle
Multi-media

Think outside the (text)box
Bite-sized video content

Trusted, bite-sized learning
Think outside the (text)box

Interactive Video Learning Experiences on Alexander Street
Academic Video Online
Principle

Multi-media

Think outside the (text)box

Immersive storytelling experience
Let’s explore
3D interactive experience

The New
New York Skyline

Manhattan is in the midst of an unprecedented boom in tall buildings. Before 2004, Manhattan was home to 28 skyscrapers 700 feet and taller. Since then, an additional 15 have been built, 15 are under construction, and 19 are proposed—all in all. These additions are rapidly—and radically—changing the skyline.
Transcribe

Ensure all mediums are accessible as well as searchable
Principle

Chunking

Break content into bite-size portions

Design for short attention...
You’ve got 8 seconds or less to engage

TLDR
Keep it short and sweet

H1, H2, H3, H4, H5
Utilize headings to make content easy to scan
Principle

**Integrity**

*Practicing and promoting honesty*

**Deliver on your promises**
Demonstrate how your values impact your actions

**Be authentic**
Direct and transparent communication

**Harness collaboration**
Tap into this commitment of Digital Natives to do great work together
UX Resources

NN/g Nielsen Norman Group

INTERACTION DESIGN FOUNDATION
Est. 2002
ProQuest resources to inspire digital natives in their academic journey:

**ProQuest One Academic** offers a broad range of multiformat content in one portal, bolstering information literacy and serendipitous discovery.

For libraries, this multidisciplinary resource enables them to provide a rich foundation across the curriculum.

For more information, visit
https://discover.clarivate.com/Engaging_Digital_Natives
That’s all folks!

Thank you

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Current school level

- Elementary school (kindergarten through 5th grade): 41%
- Middle school/junior high (6th through 8th grade): 20%
- High school: 18%
- College/undergraduate studies: 5%
- Graduate/doctoral studies: 8%
- Not in school: 7%
Digital Natives Survey

Q3

Where have you gone to get help with school assignments?

[Bar chart showing the most common sources of help for school assignments, with the highest being a website (56%), followed by YouTube, TikTok, Instagram (54%), a peer (48%), and an adult (40%).]
Digital natives Survey

Q4 & Q5

Where would you start researching the topic...

If you were writing a **history paper**?

- A peer (friend, classmate or sibling): [Bars represent data distribution]
- An adult (parent, family member or friend): [Bars represent data distribution]
- An expert (tutor, librarian, etc.): [Bars represent data distribution]
- Class resources (your teacher, books, materials, etc.): [Bars represent data distribution]
- Social media (YouTube, TikTok, Instagram, etc.): [Bars represent data distribution]
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- Other: [Bars represent data distribution]

If you were writing a paper about a **recent trend**?

- A peer (friend, classmate or sibling): [Bars represent data distribution]
- An adult (parent, family member or friend): [Bars represent data distribution]
- An expert (tutor, librarian, etc.): [Bars represent data distribution]
- Class resources (your teacher, books, materials, etc.): [Bars represent data distribution]
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- A website (Wikipedia, Reddit, library website, etc.)
- Other
What devices do you use for learning?

- Laptop computer (e.g., Chromebook, MacBook, etc.)
- Smartphone (e.g., iPhone, Google Pixel, Samsung Galaxy, etc.)
- Tablet (e.g., iPad, Kindle, Surface, etc.)
- Desktop computer with monitor
- Smart speaker (e.g., Alexa or Siri)
- None of the above
- Smart watch
Have you ever watched a video about any of these learning-related topics?

- How to learn a new skill (e.g., DIY home projects, making a recipe, crafts,...)
- General study tips
- How to take a quiz/test
- How to write better
- How to perform research
- How to use library services and resources
- How to read better
Please select the statement that best reflects your experience with each photo/video sharing app.
When searching the Internet, have you ever found information that is incorrect?

- Yes: 68%
- Maybe: 27%
- No: 4%
Digital Natives Survey

Q11

What might cause you to believe that information you find is incorrect?

- It conflicts with what I know: 56
- It lacks references or other sources: 47
- It is poorly communicated (poor writing style, not persuasive, etc.): 40
- It does not seem believable: 40
- It contains discrepancies: 31
- It lacks names or brands I recognize: 21
- It does not match my expectations: 23
- Other: 2

[Bar chart showing the distribution of responses]
Q12

Do you check that the information you’ve found is correct?

- Always: 31%
- Most of the time: 26%
- Sometimes: 25%
- Every once in a while: 12%
- Never: 6%