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Binge Learning in the Streaming Age: Trends, Technologies, and Strategies

James Cross, Workday

Austin, TX • June 8 – 10, 2016
Always been fanatical about technology, video and learning
Content consumption is rapidly evolving

Consumer behaviors drive learning change

We can leverage these trends to create great learning experiences!
Content consumption is rapidly evolving.

@jamesrcross bingelearn
“Music is going to become like running water”

David Bowie, 2002
2015:

All content has become like running water
Video is eating the internet.

Global Internet Traffic

- **2013**
  - Video: 43%
  - Everything else: 57%

- **2016**
  - Video: 86%
  - Everything else: 14%

SOURCE: CISCO
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New ways of consuming content: new behaviors emerge...
Binge watching
64% of people now identify themselves as binge watchers

SOURCE: NEW YORK TIMES

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Binge watchers anonymous...
Millennials love online video.

<table>
<thead>
<tr>
<th>Age</th>
<th># of videos watched per month</th>
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<tbody>
<tr>
<td>12-17</td>
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<td>18-24</td>
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<td>25-34</td>
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<td>55-64</td>
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<td>65+</td>
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</tbody>
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SOURCE: COMSCORE
Casey Krafft
@DaCapitlan94

Doing homework, eating taco bell, and binge watching legit on Netflix. This is how college works right? #priorities #4pointGPA

Ryan Whiting
@Ryguy614

You're not officially a college student till you've binge watched an entire season of a show on Netflix in less than a week
But it’s not just Netflix that they’re binging on...
Consumer behaviors drive learning change
Binge learning
Shanika McCray @DoseofDKADNT
It's a #Lynda tutorial kind of night. Snacks & 5 hour energy on deck #lynda.com binge mode #tutorials
The future is already here - it’s just not evenly distributed

William Gibson
More users than Twitter
More video plays than FB
60% of <34 smartphone users

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1. A few key people drive the success of startups.
2. Every company needs a few ‘star players’.
3. But it takes a team to succeed.
4. All great teams have great coaches that help team work, roles, and mental toughness.
5. Startup should be no different.
6. Obviously depends on $/resources but
   A. Board
   B. VCs
   C. Mentors/Advisors
   D. Executive Coaches

Leadership: Who, How, and When to Bring on Coaches
Highly tactile
Rapid-fire
Short-form
Low barrier to entry
Inherently personal
Real-time
A lot of fun!

(Is your LMS any of these?)
It takes time to adapt to new mediums.
The first iron bridge used woodwork techniques.
The first TV programs mimicked radio shows.
We’re starting to leverage mobile possibilities in new and unique ways.

We need to apply the same thinking to learning, too.
Mobile SCORM = Radio on the TV
How do we create binge-worthy learning?
Learning isn’t linear.
Content Mining
GOING ON YOUTUBE JUST TO WATCH A 5 MINUTE MUSIC VIDEO

5 HOURS LATER WATCHING A TUTORIAL ON HOW TO TALK TO GIRAFFES

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Content snacking

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% watched vs video length

SOURCE: WISTIA

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Make five videos. Not one.
It’s not just about content. It’s about the delivery platform too.
Consumerized expectations
Everything should work just like Facebook.
Make sure video is searchable.
The rise of mobile + tablet video

Share of mobile + tablet video plays

SOURCE: OOYALA
@jamesrcross #bingelearn
Today’s users have high expectations around video

@jamesrcross #bingelearn

Ollie lambert @lambert_ollie · Feb 23
It doesn't matter what video I'm watching, after 2 seconds of buffering or failing to play, it no longer has my interest. It's dead to me
Slow video = physiological stress!
Functional areas of the brain relating to the neuro metrics used

EEG electrode headsets were used to record brain activity

Dorsolateral prefrontal cortex

Orbitofrontal cortex
Heart rate increases 38% with mobile content delays.

A two second delay in loading a YouTube video increases stress by three percentage points.

Once a video begins, a single pause can cause stress levels to increase 15 additional percentage points.

- 0 seconds (No delays): 13%
- 2 seconds (Medium delays): 31%
- 6 seconds (High delays): 34%

bit.ly/videostress
Heart rate increases 38% with mobile content delays
The level of stress caused by mobile delays was comparable to watching a horror movie.
THE STRESS OF STREAMING DELAYS

bit.ly/videostress
A great video experience needs a great cloud infrastructure

Encoding  Storage  CDN  Player
Learning is now real-time

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91% of smartphone users turn to their devices for ideas while completing a task

Source: Google
67% of millennials agree that they can find a video on anything they want to learn.

Source: Google
Snackable learning content
Micro learning moments, powered by mobile
Use data to inform learning content creation.

Data-driven learning experiences

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Netflix knows...

And this data underpins all their content creation.
Personalized learning through context

Who am I?

What are my career goals and interests?

What are people like me viewing?

How do I learn best?

What is important to my organization?
Everybody is now a content creator
“How to" content on YouTube is growing 70% year over year.

Source: Google
The most powerful content creation tools ever: now in every employee’s pocket
The Experience Economy
The Experience Economy
The next phase: guiding transformations
Transformations are custom experiences designed to guide individuals through a process of change.

Mark Halberstadt
Thank You Khan Academy - YouTube
Guide personal transformations

Stage learning experiences

Deliver learning
“One of the best business books of the twentieth century, now renewed for the challenges of the twenty-first.”
—Tom Kelley
General Manager, IDEO

B. JOSEPH PINE II
JAMES H. GILMORE
The days of Learning Management are over
Real-world learning

Workplace learning
We need to look to the consumer content world, and leverage those trends and technologies.
LEARNING!
Thank you!

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@jamesrcross

#bingelearn