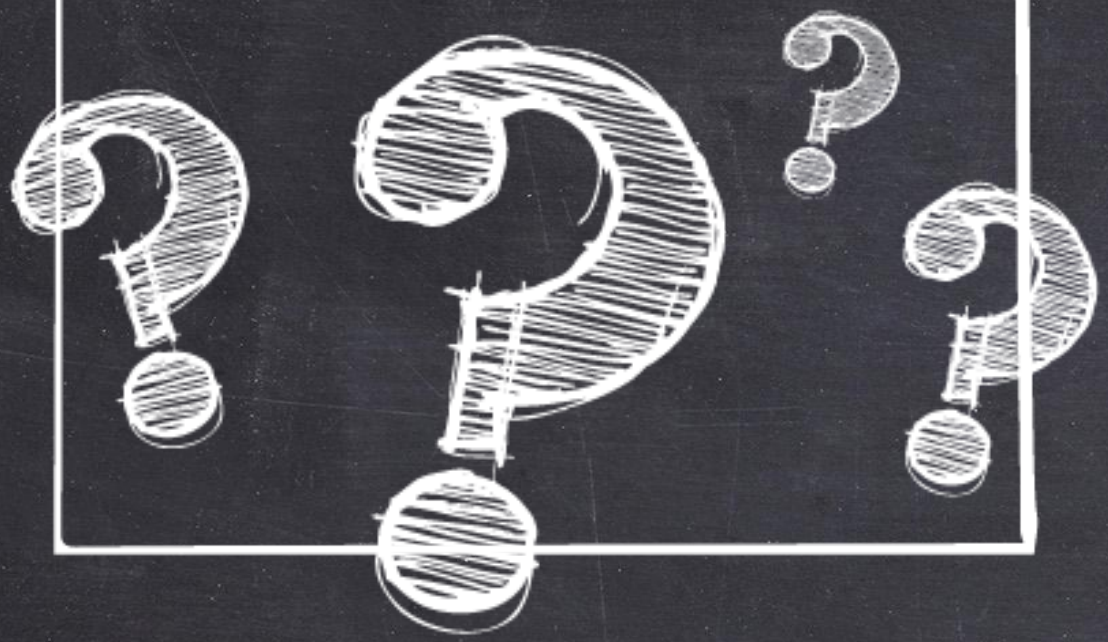

BULL
CITY
LEARNING

strategies for engaging the modern learner

Bull City Learning

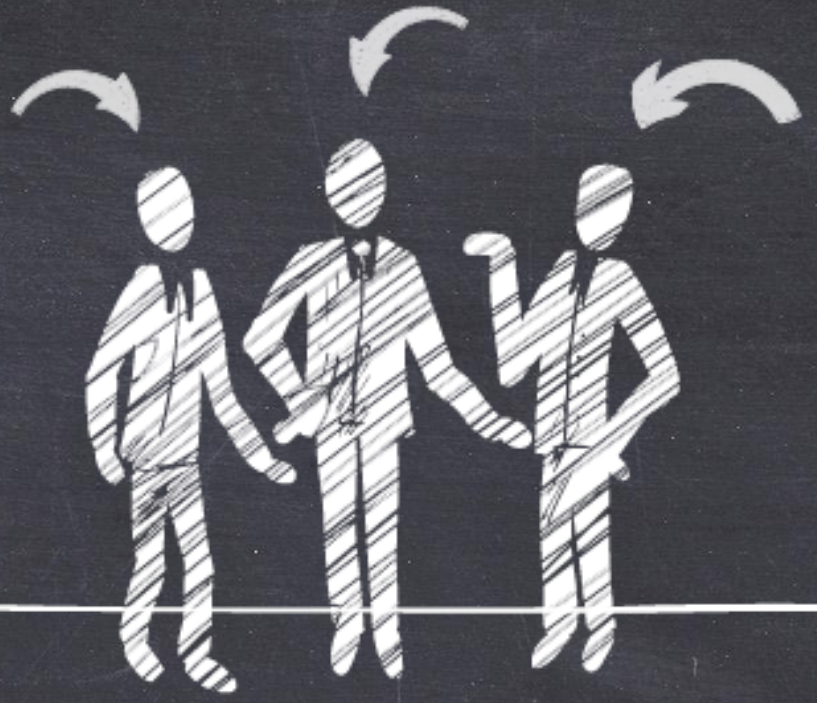
Part 1

Who are these modern learners?



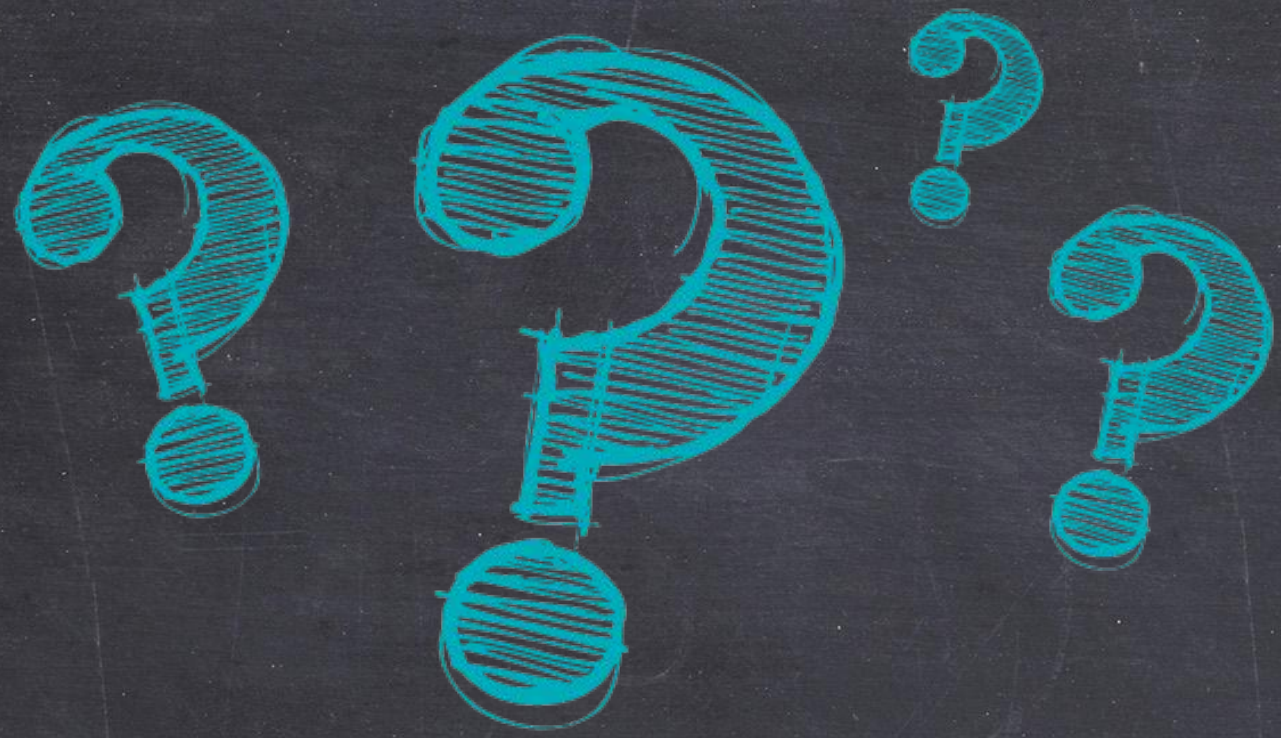
Part 2

How do I engage them?

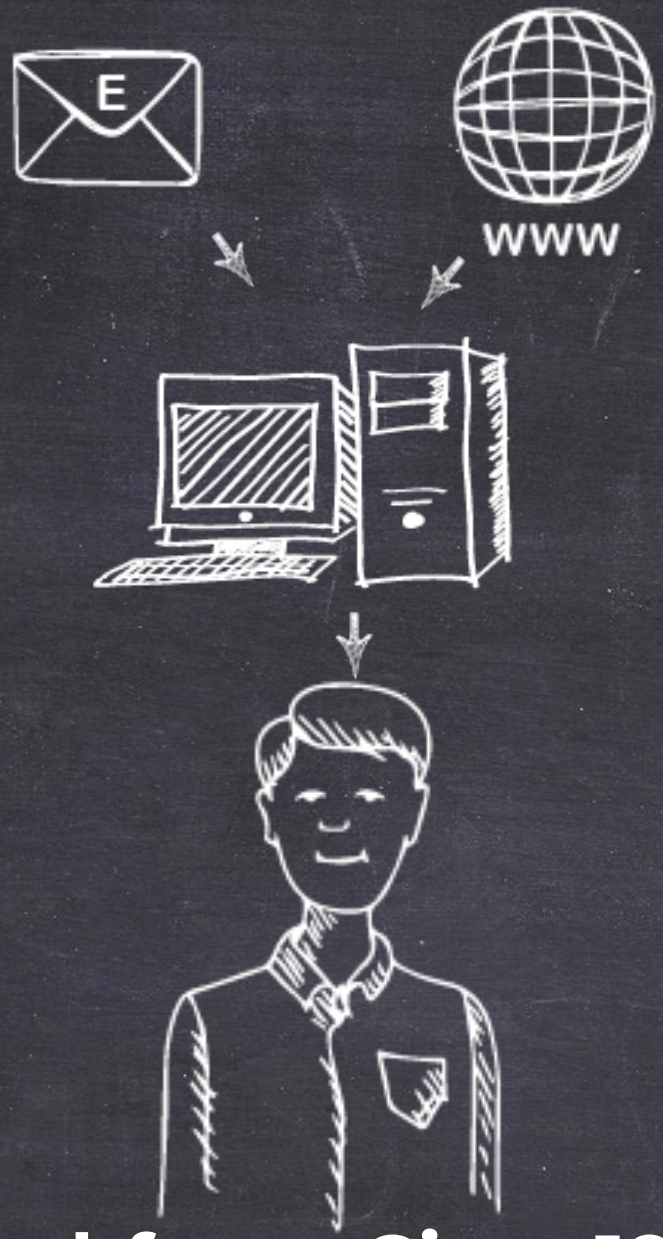


Part 1

Who is this modern learner of which you speak?



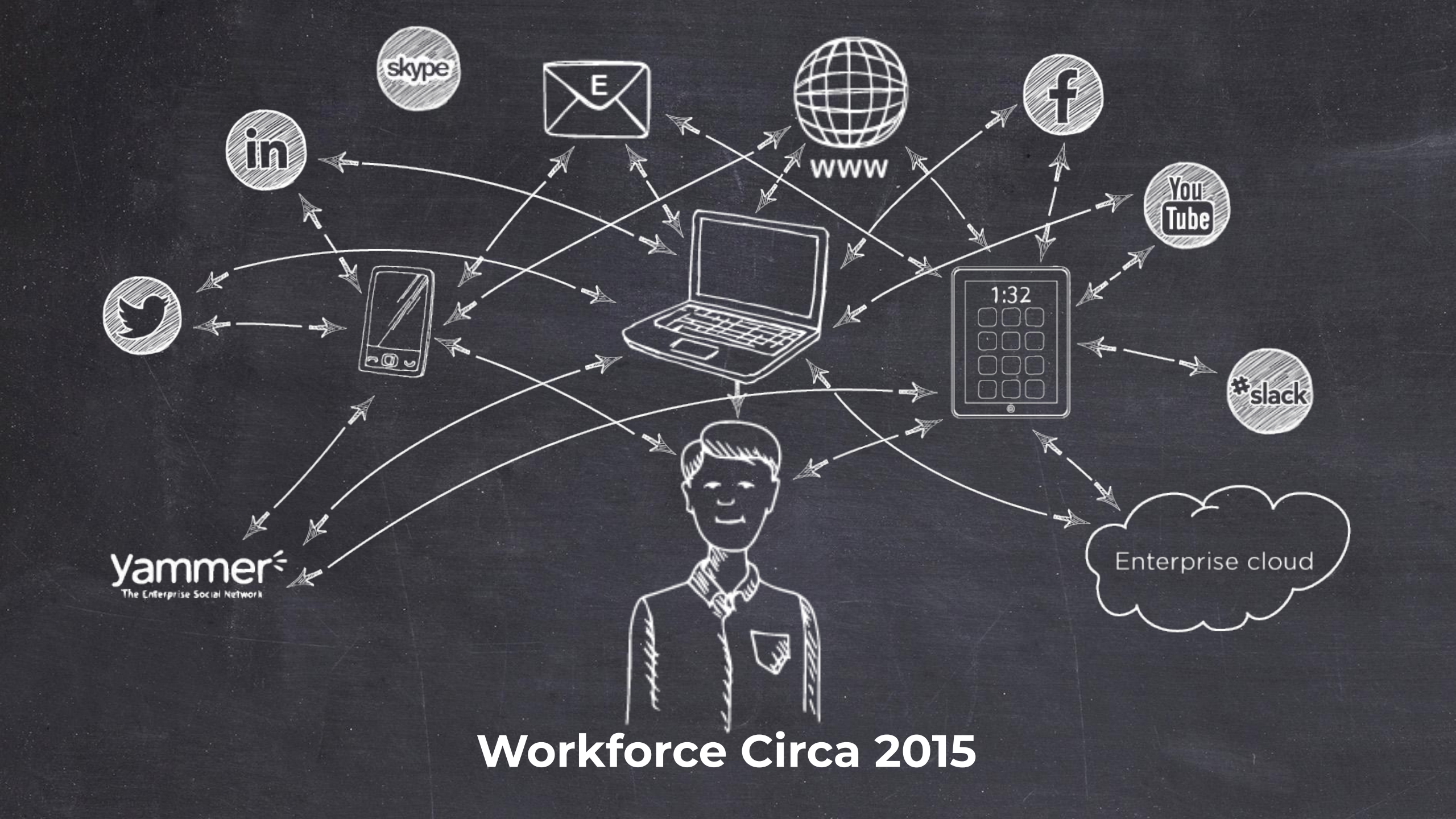
Workforce Circa 1985



Workforce Circa 1995

Workforce Circa 2005

Workforce Circa 2015



Workforce Circa 2015

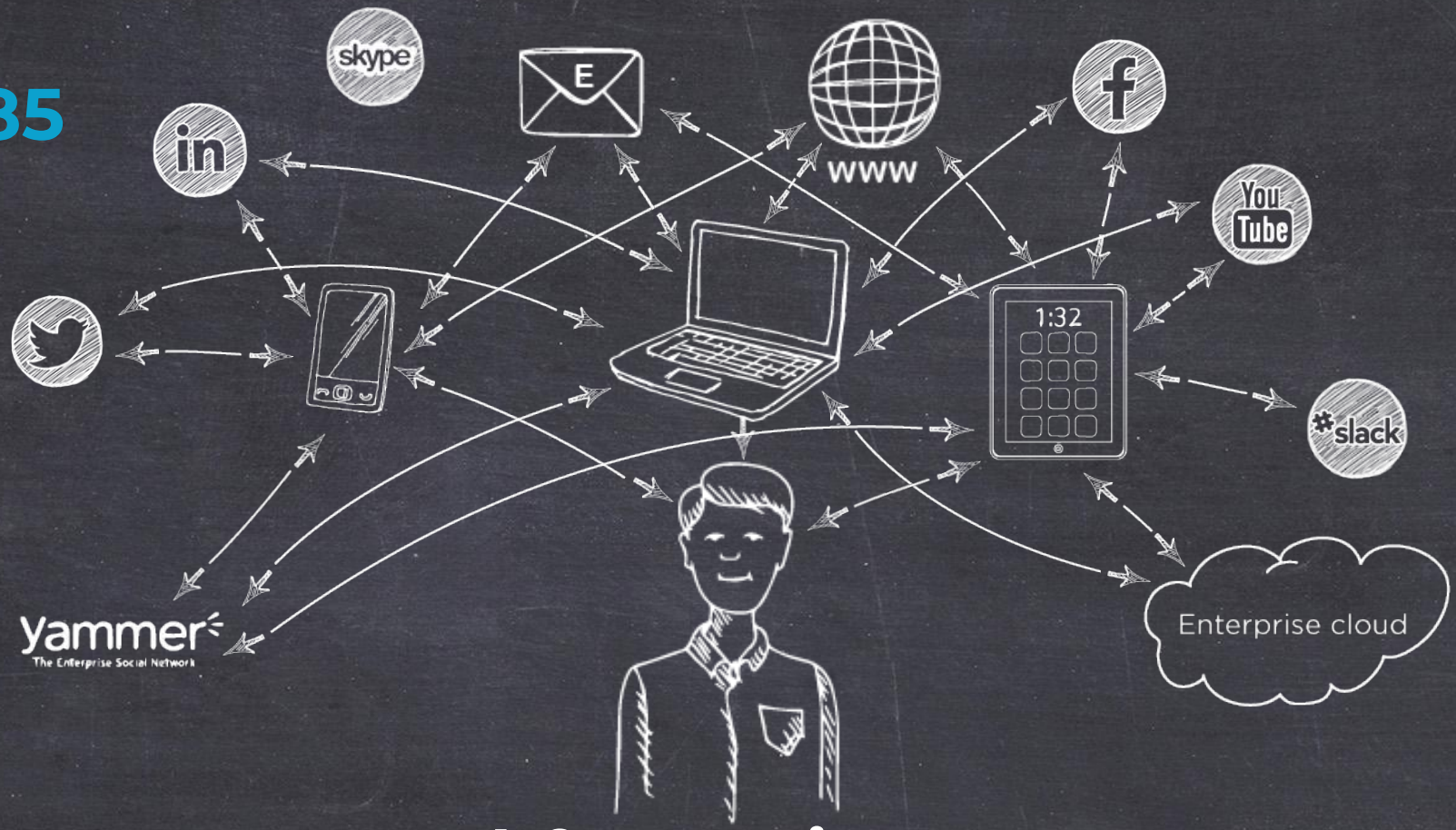
Workforce Circa 2015

http://techland.time.com/2013/07/08/a-nation-of-kids-with-gadgets-and-adhd/*TIME article asking if devices are to blame for the increase in behavioral disorders (ADHD)*

The amount of time spent in front of device screens: 7.5hrs/day... an increase of 20% from 5 years ago.

TIME article asking if devices are to blame for the increase in behavioral disorders (ADHD)
http://techland.time.com/2013/07/08/a-nation-of-kids-with-gadgets-and-adhd/

Workforce Circa 1985



Workforce Circa 2015

12,000,000

Number of Twitter users who follow 64 or more Twitter accounts (1.5 million follow over 511 accounts)

20,000,000

Facebook apps installed everyday, most of which are a distraction

700,000,000,000

Minutes people spend on Facebook each month

The point?

Attention is being spread across more and more media access points

Evidence

500%

Increase in the past three years in the number of people simultaneously using devices

21

Number of times the average person switches devices *per hour*

30-40

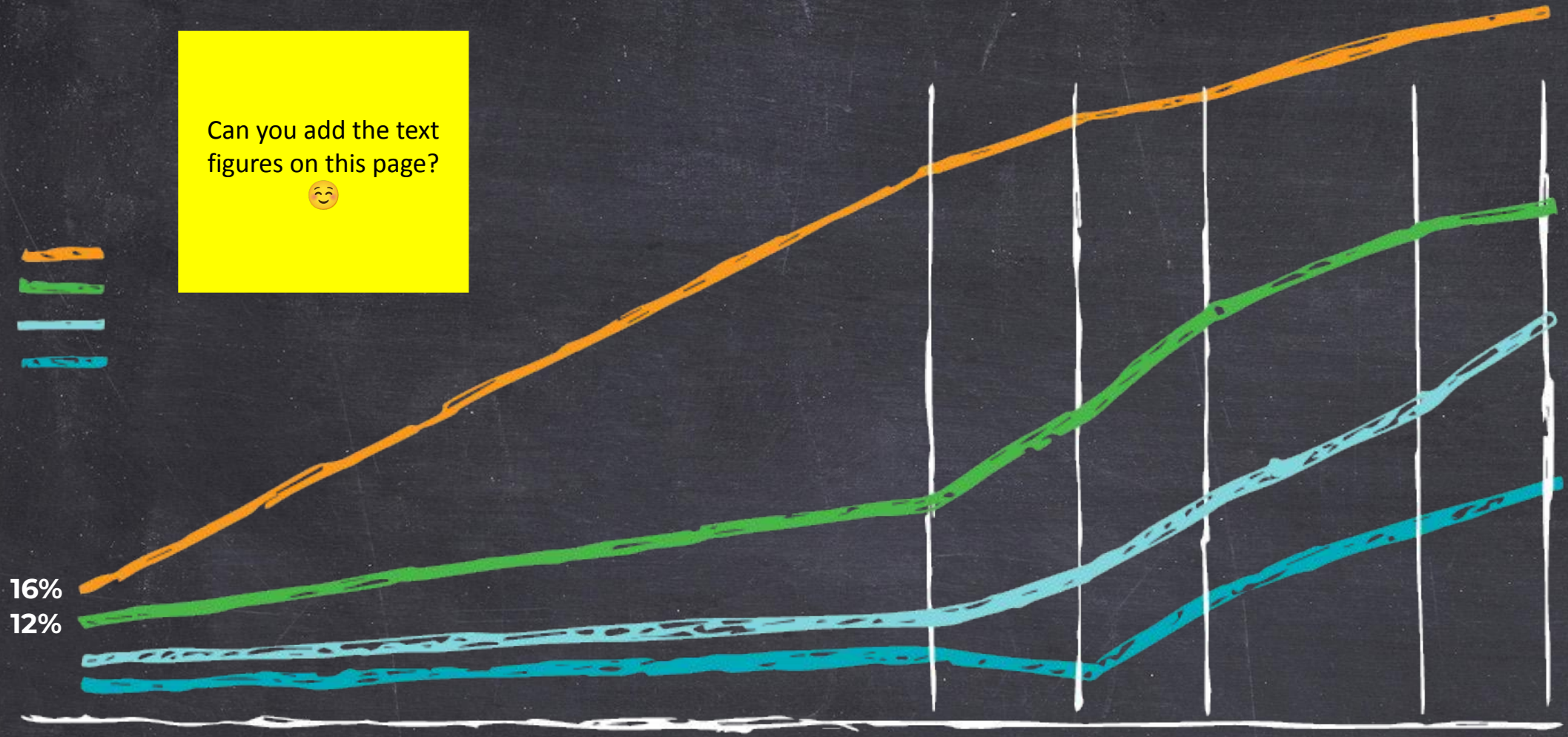
Number of times per hour the average office worker checks his email inbox

According to Google,
90% of people use multiple screens
to accomplish a task over time, with
smart phones being the dominant
device for media interactions.

Smart phones have the highest
number of interactions during the
day.

OK, but this is really all about young workers, right? Think again.

Can you add the text figures on this page?
☺️



Recap: the modern learner

- Uses more systems/devices than ever
- Rapidly switches from device to device
- Is overloaded with information
- Distributes attention thinly across many things
- Is found in all age brackets:

Alright, so people are using more media and devices all the time. So what?

Information consumes “the attention of its recipients. Hence a wealth of information creates a poverty of attention.”

Nobel-winning economist Herbert Simon

12 MINUTES

Attention span of the average person in 2000

5 SECONDS

Attention span of the average person in 2013

9 SECONDS

Attention span of the average gold fish.

http://www.statisticbrain.com/attention-span-statistics/

“The current generation of internet consumers live in a world of ‘instant gratification and quick fixes’ which leads to a ‘loss of patience and a lack of deep thinking.’”

2013 NPR article on Mobile devices & short attention span

http://www.theguardian.com/media-network/media-network-blog/2012/mar/19/attention-span-internet-consumer

17%

Of pages views last less than four seconds.

2.7 minutes

Of words read on web pages with 111 words or less.

49%

Of pages views last less than four seconds (28% on average 583 word web page)

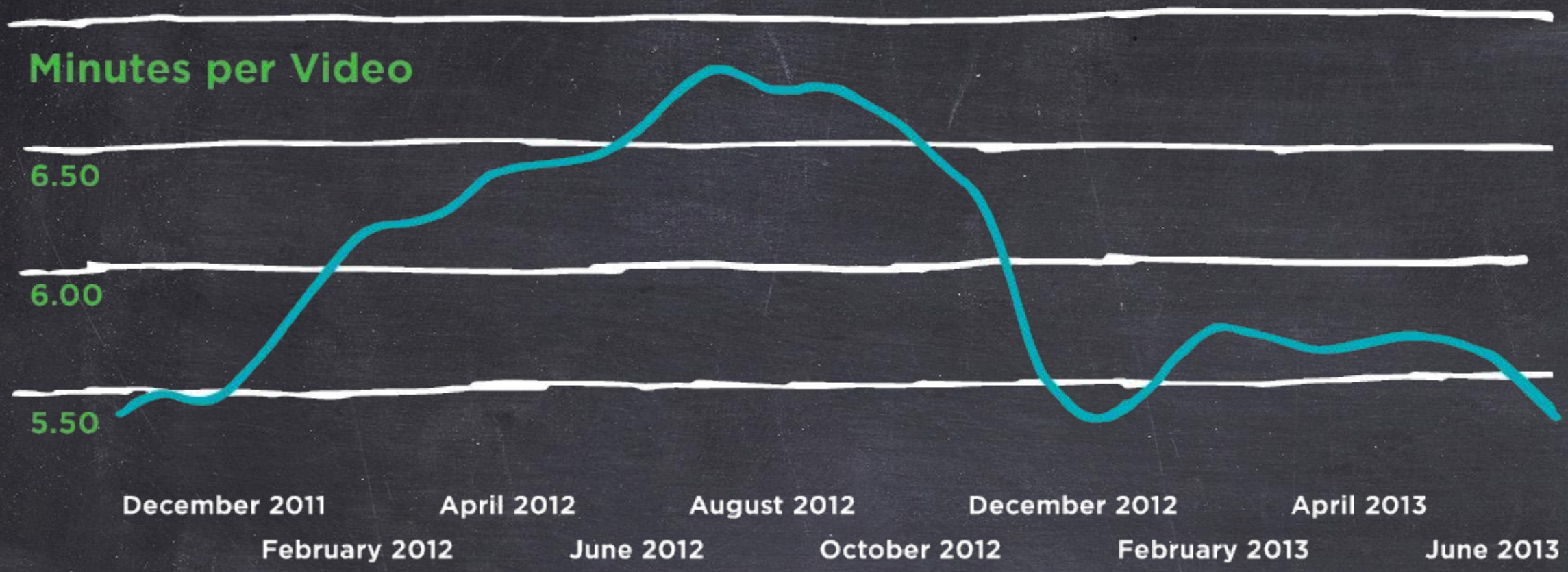
•http://www.statisticbrain.com/attention-span-statistics/

32% of consumers will start abandoning slow sites between one and five seconds

Bounce rate can be improved by up to 30% with the reduction of page size and resulting speed improvements

A 1-second delay in page load time can result in 11% fewer page views, 16% decreased customer satisfaction and 7% lost conversions.

http://www.theguardian.com/media-network/media-network-blog/2012/mar/19/attention-span-internet-consumer



The length of each individual internet video has reversed its rise and has decreased between 12/2011 – 6/2013 from nearly 7 minutes to just over 5 minutes.

Mobile devices condition their users to expect content, electronic stimulus

2013 NPR article on Mobile devices & short attention span

Recap: the modern learner

Uses more systems/devices than ever

Is overloaded with information

Rapidly switches from device to device

Distributes attention thinly across many things

Is found in all age brackets:

What impact is this having on us personally?

1. We’re easily distracted

“87% of teachers felt modern technologies were creating an "easily distracted generation with short attention spans".

The Pew Research Centre in America

A common belief among teachers is that although technology has greatly improved students’ research abilities & skills, it has created an easily distracted generation with short attention spans and has done more to distract students than to help them academically.

Journal Article: Digital Distractions in the Classroom: Student Classroom Use of Digital Devices for Non-Class Related Purposes

Today, 1 in 10 children are diagnosed with ADHD. In the last decade, diagnoses of ADHD has increased by over 50%.

Millennials will have five careers – not five jobs – in their lives

2. We for

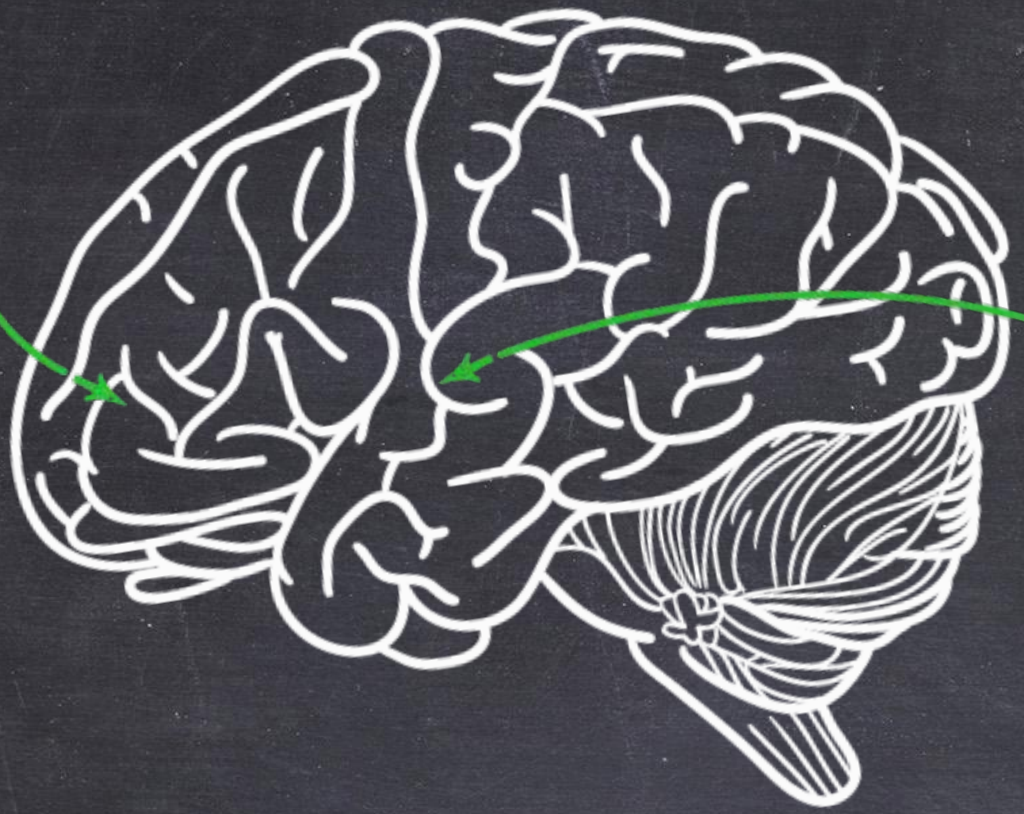
Can you format the text here?

25% of people forget names and personal details of their close friends and relatives.

7% of people forget their own birthdays from time to time.

Frontal Lobe

The frontal lobe is where incoming messages are processed and working memory is stored, and it is here where the brain is most impacted.

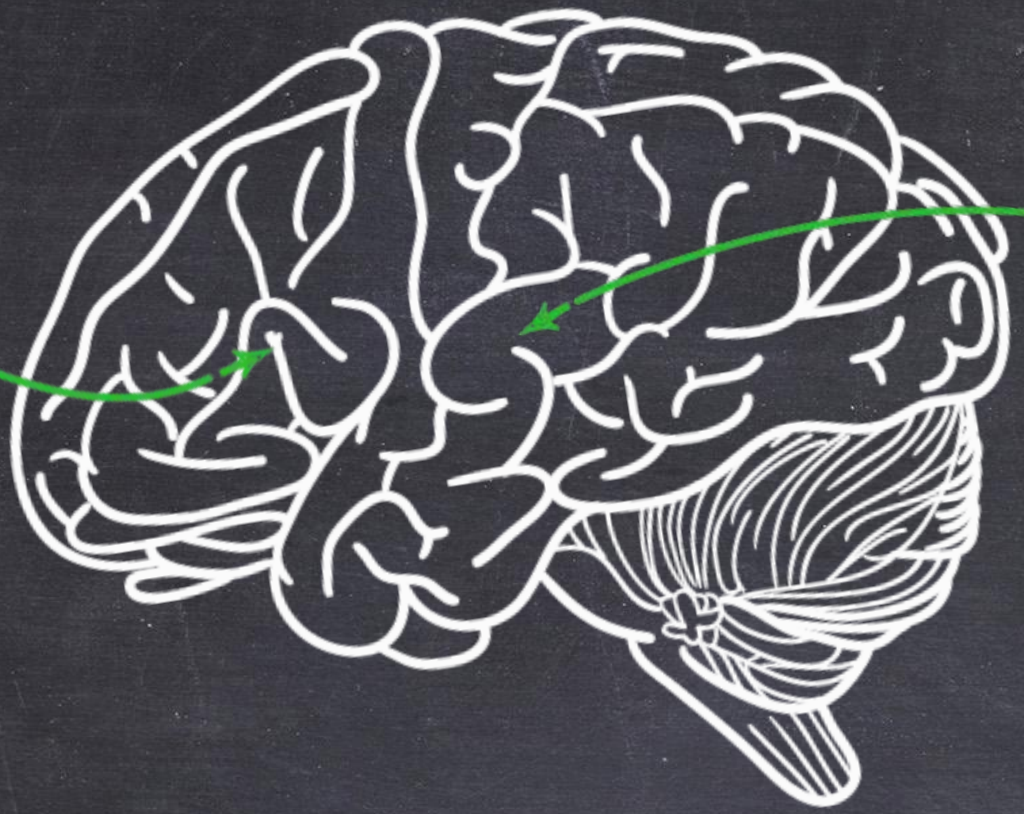


Hippocampus

The Hippocampus (the region of brain deep within the temporal lobe) weaves new and old memories together, signaling a consolidation process, where the brain's attention is required to pass new information from short-term working memory into long-term memories.

Step 1

Enter the frontal lobe
A message enters the frontal lobe

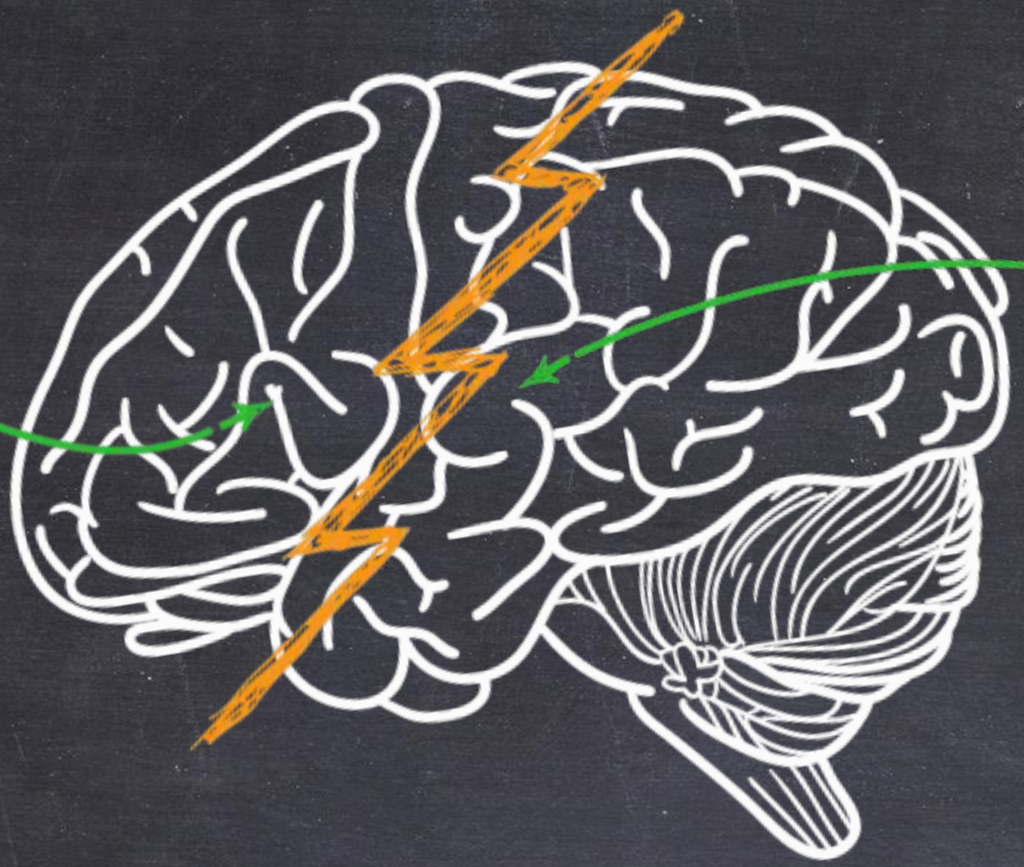


Step 2

It enters the hippocampus
The message joins with other messages already in the hippocampus.

Step 1

Enter the frontal lobe
A message enters the frontal lobe



Step 2

It enters the hippocampus
The message joins with other messages already in the hippocampus.

If the brain becomes distracted during this cognitive process, there's an increased risk in losing new content and new memory.

“Repeated distractions that trigger rapid shifts in attention take a toll on the frontal lobe, which affect judgment, creativity, and focus, as well as lead to shallow thinking. Repeated distractions in thought is an indication that something about us is different, but it is not an obvious sign of the changes in our brain which happen unconsciously and without warning. The brain makes this transition silently and automatically. The biggest risk is a loss in human qualities to an Internet Digital Addiction (IDA). “

Text formatting, please ☺️

http://link.highedweb.org/2013/12/are-your-digital-devices-rewiring-your-brain/

Text formatting, please ☺️

ess data faster

This surprising result led the scientists to propose that even simple computer games like Tetris can lead to “marked increases in the speed of information processing.”

Nicholas Carr, NY Times book review of “The Shallows: What the Internet Is Doing to Our Brains”

Digital interaction has improved our hand-eye coordination and reflexes are quicker and more reactive.

Article describing how our brains are being rewired due to our digital device activities.
http://link.highedweb.org/2013/12/are-your-digital-devices-rewiring-your-brain/

Text formatting, please ☺️

ore visual

Another influential study demonstrated that after just 10 days of playing Medal of Honor, a violent first-person shooter game, subjects showed dramatic increases in visual attention.

Nicholas Carr

Our ability to envision 3D graphics and visual animation is enhanced.

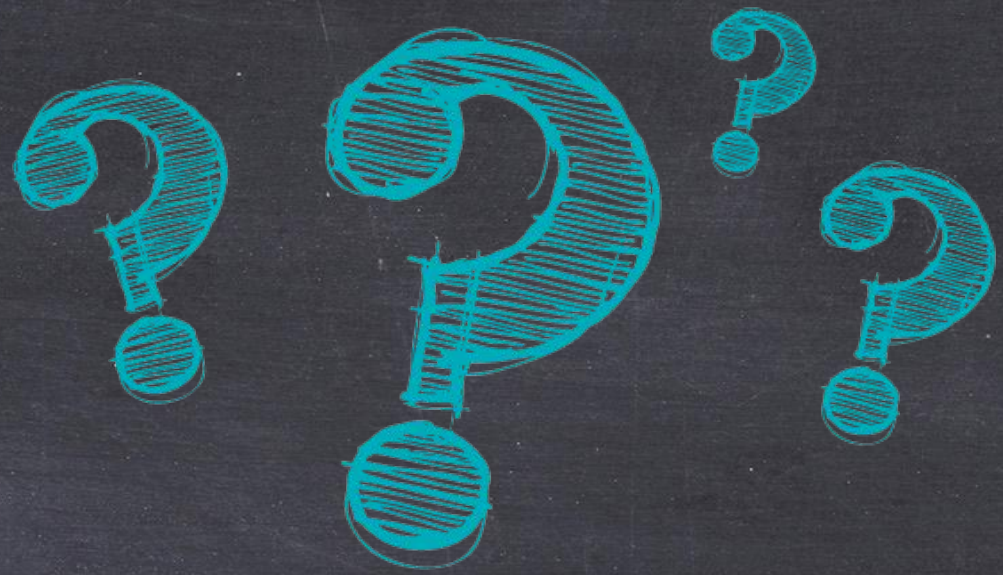
LINK Journal

“One average users only read 28% of words on a web page per visit”

Nielson, J. (2008). How Little Do Users Read?

Text formatting, please ☺️

rget things



Recap: the modern learner

Uses more systems/devices than ever

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Is found in all age brackets:

The new psychology of the modern learner is creating a mismatch between how people learn and how they are taught

“**Millennials are visual and kinesthetic learners** who prefer to experience the world through multimedia and not print. (Cao, et. al., 2009; Matulich, et. al., 2008; Twenge, 2005). Because **many faculty learned by reading and listening to lectures**, the Millennials’ learning style is often problematic for faculty. Professors tend to teach in the same way that they learned; the **dramatic difference in learning preferences creates a disconnect between student and teacher**.”

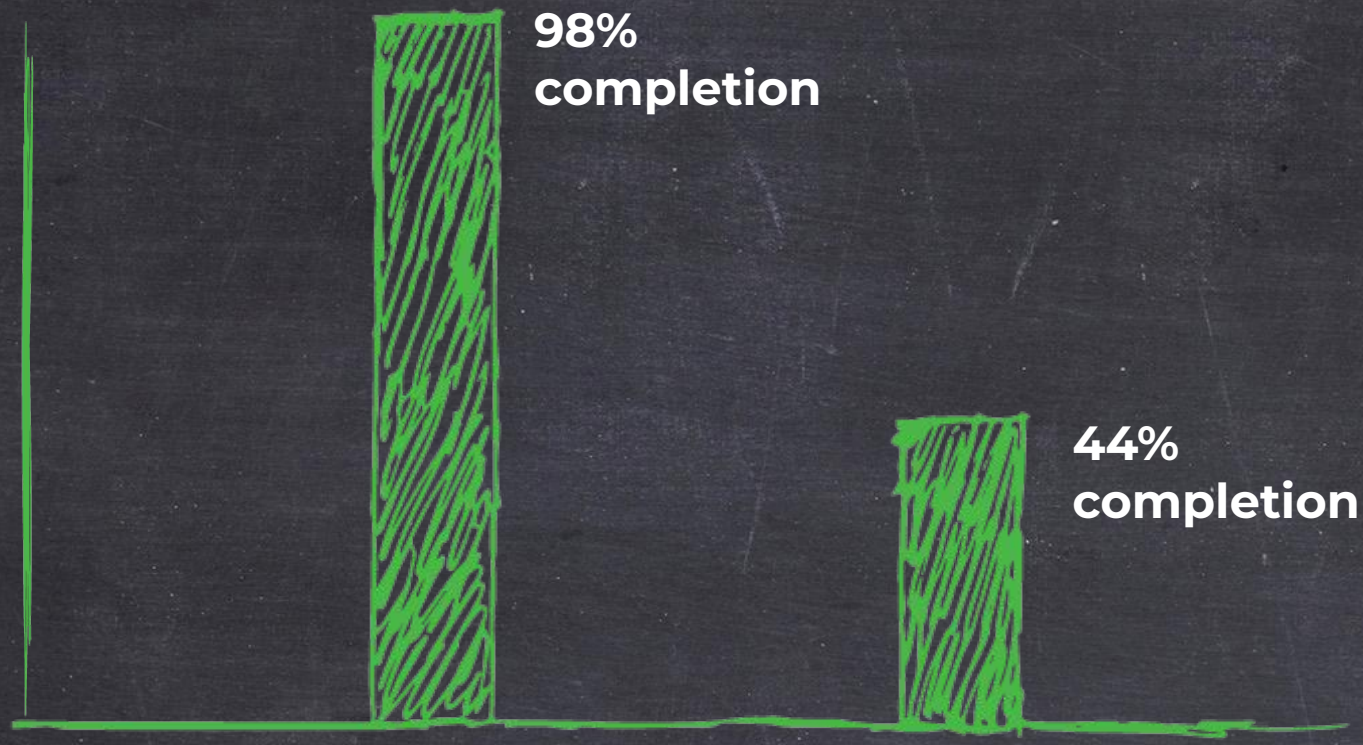
Oblinger, 2005 - http://www.aabri.com/manuscripts/111063.pdf

“Clark Quinn, the e-learning consultant, feels strongly it’s time for a change in the e-learning industry because it hasn’t changed since the early days of 2000 and 2001. Traditional corporate training involved an expert presenting information and a test to see if learners could remember that information. Much e-learning, he says, is still based on old models of instruction. ‘There is a real sad state of affairs in corporate learning right now,’ he says.”

A.J. O’Conell

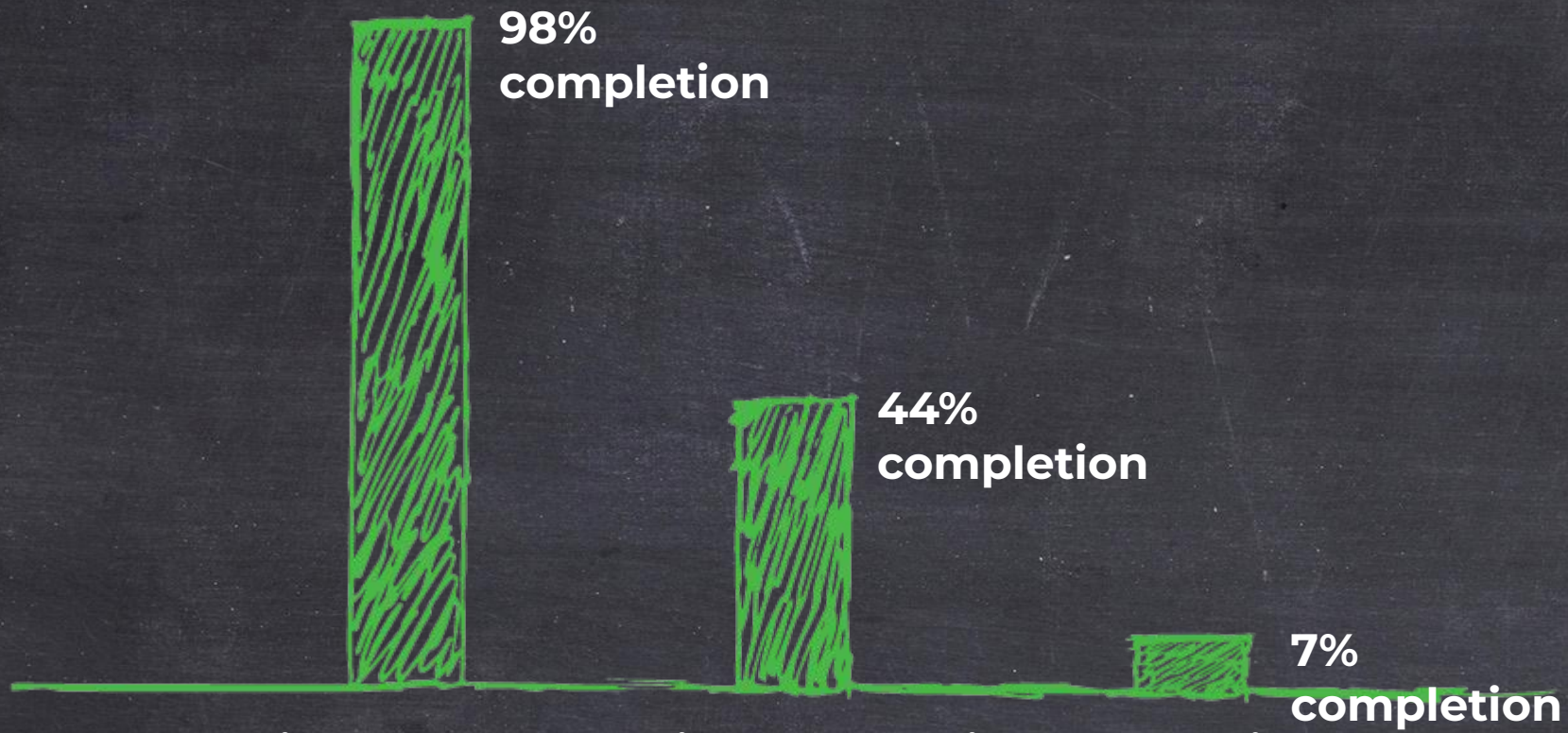
http://www.skilledup.com/insights/in-depth-look-why-workforce-e-learning-slow-to-change/

This may be the reason attendance and completion rates are low



One corporate university noticed a large disparity in completion rates after introducing online facilitated courses to its faculty professional development program. After several offerings of these online facilitated staff development courses, it became apparent that many participants who started courses did not complete them. Analysis of initial results indicated a huge disparity in completion rates between classroom and online facilitated courses (44% online vs. 98% classroom).

Factors Affecting Completion Rates in Asynchronous Online Facilitated Faculty Professional Development Courses John Sener and Robert L. Hawkins 2007 http://www.itdl.org/Journal/Dec_07/article03.htm



The average completion rate for massive open online courses is less than 7 percent, according to data compiled by an Open University doctoral student as part of her own MOOC studies.

Katy Jordan, whose Ph.D. research focuses on online academic social networks, took time out from her doctorate to gather information on the number of people completing a range of free web-based courses. So far, she has tracked down information on the percentage of students completing 29 MOOCs.

https://www.insidehighered.com/news/2013/05/10/new-study-low-mooc-completion-rates

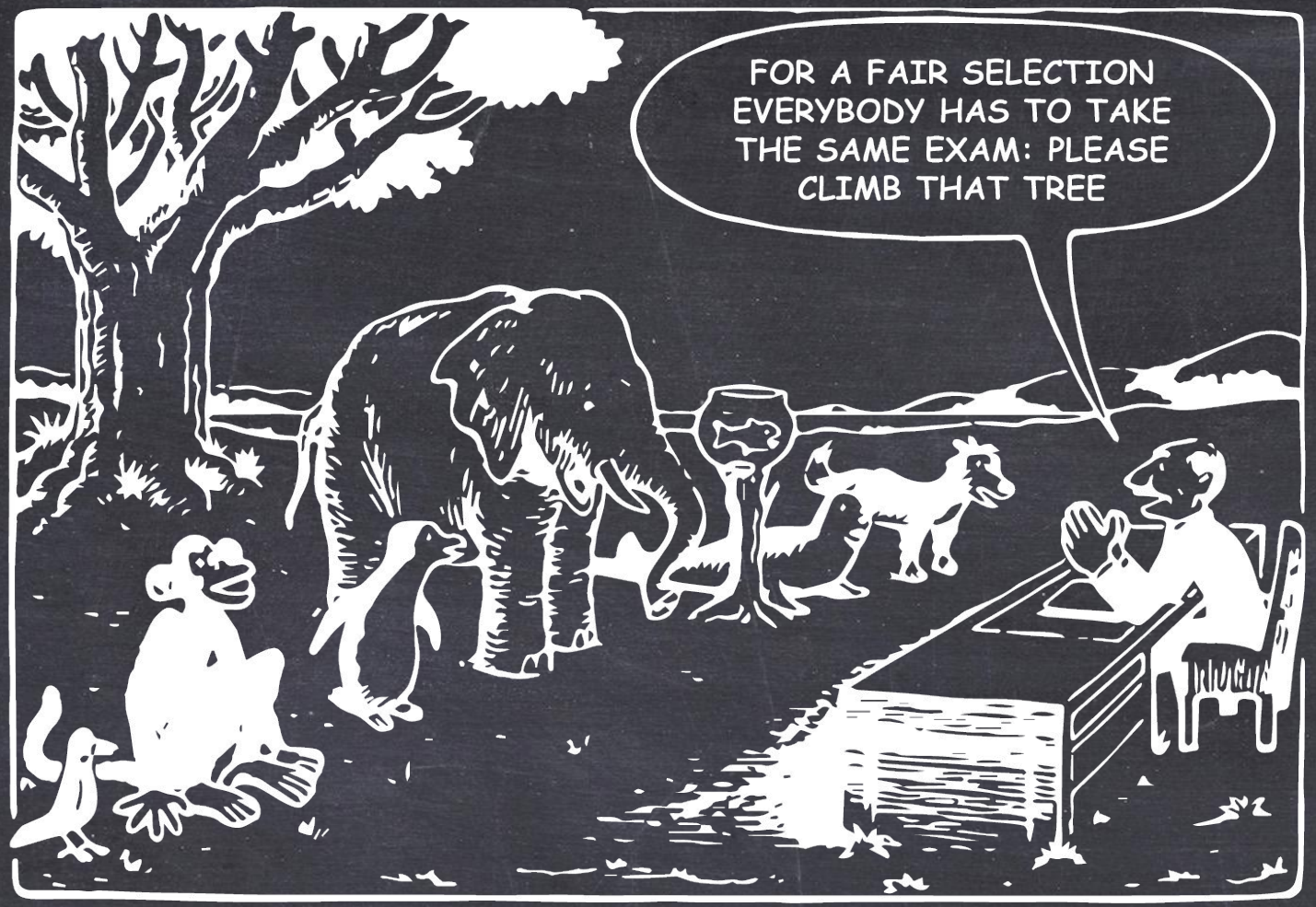
According to a recent report, 70 percent of corporate learners do not complete scheduled online learning programs. Another claimed a 20% to 50 % of e-learning dropout rate. Another cited 10% completion rate for online interventions.

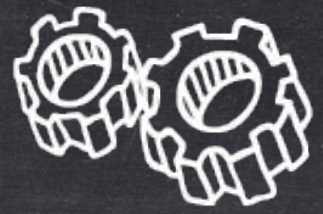
HRD Learning Participation: An Empirical Study of E-learning Completion Greg G. Wang, Diane Foucar-Szocki, and Oris Griffin
James Madison University
http://files.eric.ed.gov/fulltext/ED492830.pdf

Part 2

So, how do you create training that engages the modern learner?

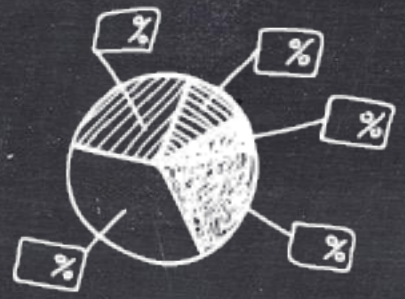
In order to keep up and create good instruction, you have to adapt the instruction to the learner





Be useful

Be brief



Be visual

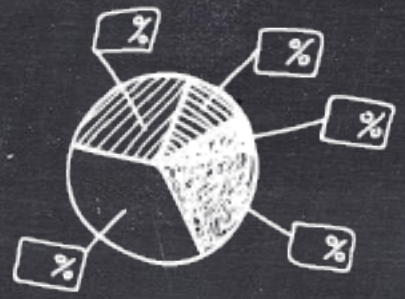
Make it active

Be everywhere

Sell it

Be useful

Be brief



Be visual

Make it active

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Sell it

Text formatting, please ☺️

> “Modern learners want things that help them advance their own personal and professional goals – they don’t really even notice anything that falls outside of that spectrum.”

Nathan Pienkowski, Bull City Learning, April 9, 2015

The grass is really long. It needs to be mowed – but I don't want to do it.

10% off burritos all day

Forecast: mostly sunny

Trip for two to Tahiti

Lawn mowing service – 20% per lawn

Self-propelling robotic lawn mower

Two tickets to the hockey game

Latest fad that's taking off: suspenders

Re-runs of Happy Days at 6:30 PM

Save by refinancing your mortgage

Years of psychological research (including my own) have demonstrated that when people have a goal or set of goals, it trains their minds to notice things that will advance those goals (and that confirm their biases) and ignore or even fail to notice other things.

Can you help me with the screen shot? I'm not sure what to put here.

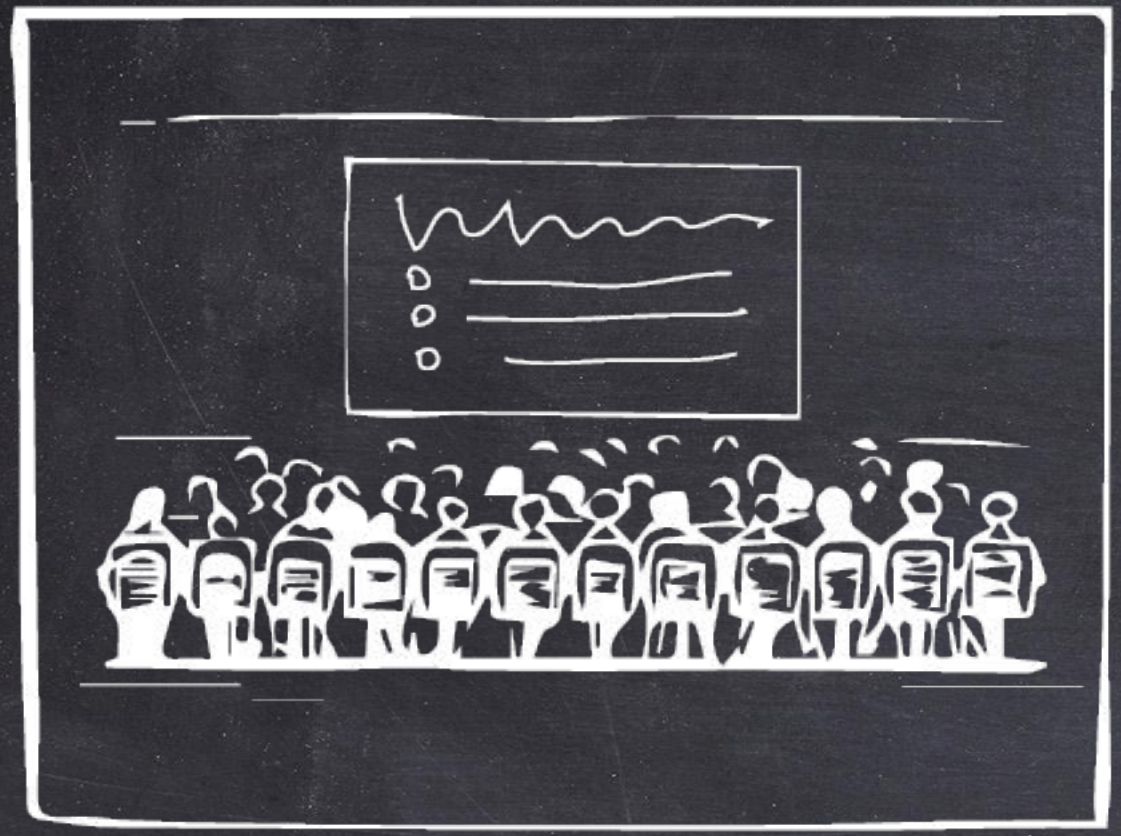
Ten years of constant A/B testing by the marketing community using Google have provided vast quantities of data supporting this premise

Include screen shot of Google search results showing alignment between search terms, ad phrases, and web page titles.

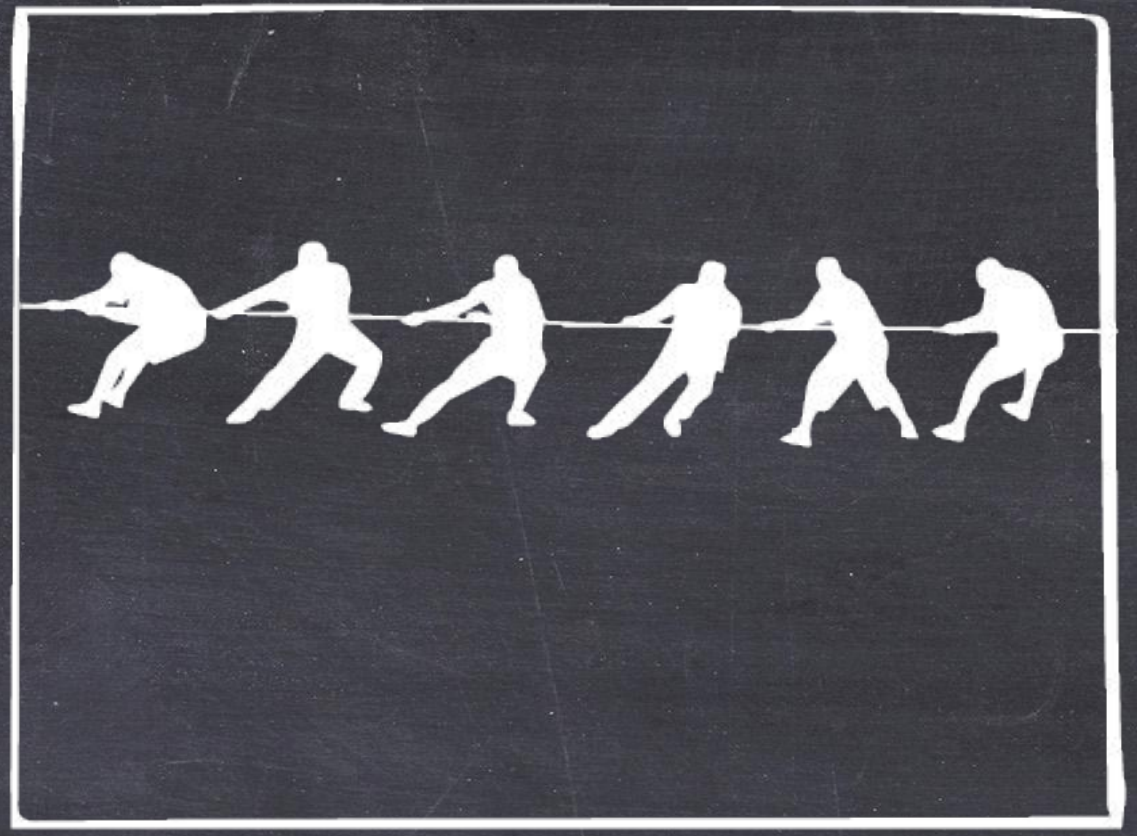
You want your training to stand out like a good Google ad or search result

Include screen shot of Google search results showing alignment between search terms, ad phrases, and web page titles.

How do you do this?



Create training around topics useful to the audience



Give the training titles that denote value and that “pull”

A lot of training does not denote value – top down rather than bottom up

Text formatting, please ☺

ne up in
orate"

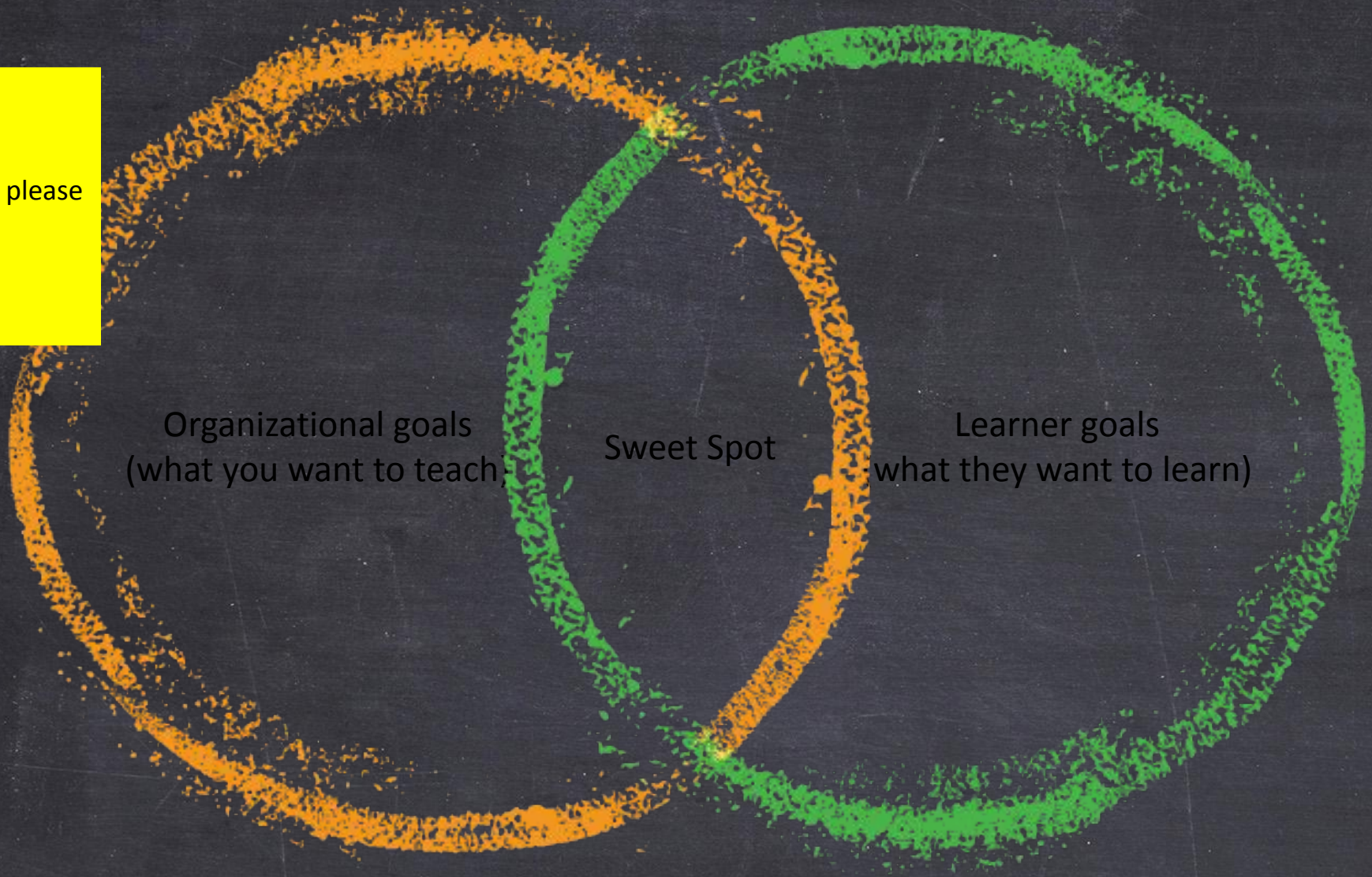
Here's some training I want you to take

Someone up in "corporate"

Here's some training I want to take

This is the equivalent of paying for a Google ad that reads "Boston terriers for sale" when someone searches for "Tickets to the Durham Bulls"

Text formatting, please ☺️



Where you want to be

How?
Think like an online niche marketer

Niche marketers do keyword research to find what phrases most people are searching on in a particular area, then they create or find a product that aligns exactly with that phrase, then they create product landing pages with those exact words, then they create ads with those exact words. Then, when someone Googles “how to stitch a double eight”, what comes up is a pitch for “Want to stitch a double more easily and quickly?” which leads to a landing page selling a product that claims to “help you stitch a double eight in 50% of the time, allowing you to cross stitch scarves for all the cousins – not just your favorite one.”

Keyword research is of no use to you – however, similar principles hold true. You can simulate this with by allowing your user community to be actively involved in establishing the agenda and using needs analyses that capture their struggles, pain points, concerns, wants, and desires.

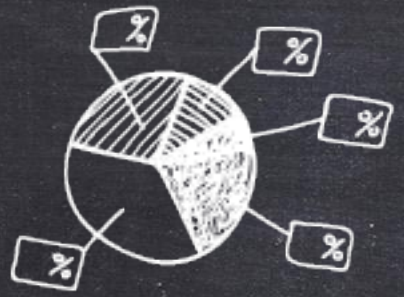
Ethical behavior
for
sales reps

5 easy ways to avoid
a billion dollar fine

Finally, you need to give your courses titles that pull – again, take a cue from bloggers and online marketers

Be useful

Be brief

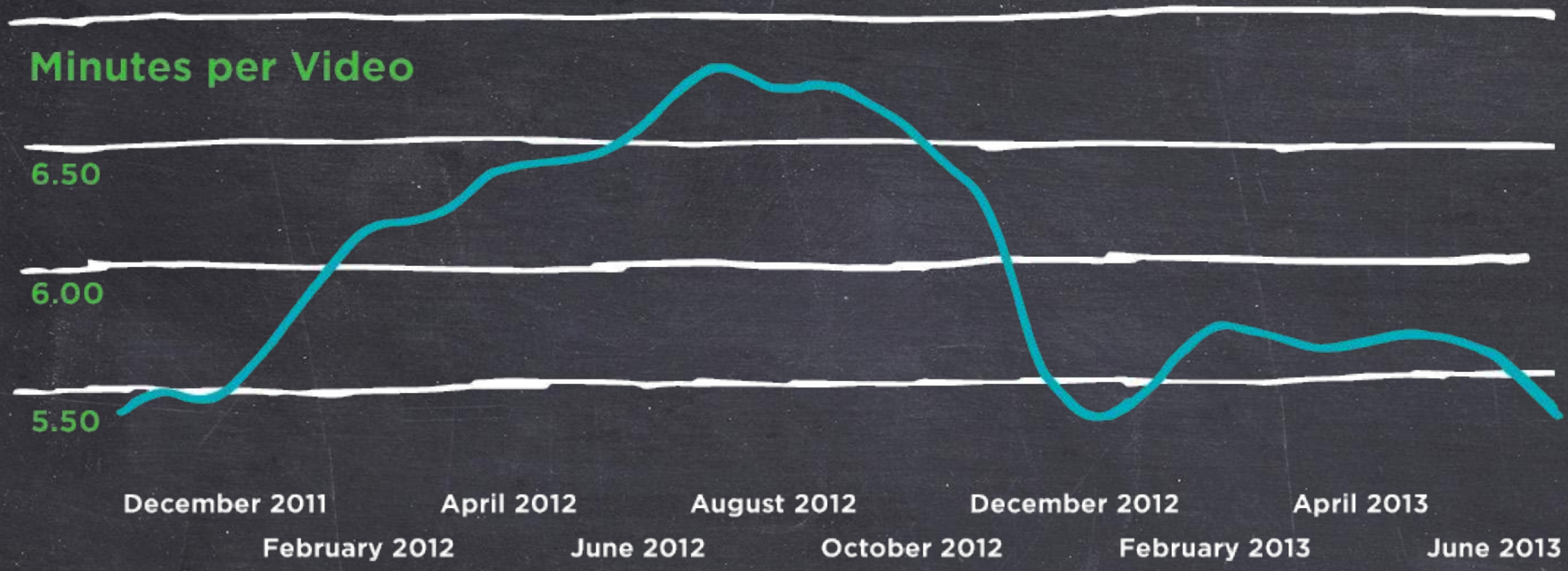


Be visual

Make it active

Be everywhere

Sell it



15 Minutes

Upper limit of an training unit – preferably a lot less.

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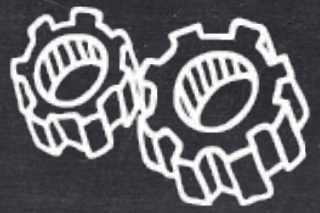
2.5 Minutes

Maximum time you should present new info before stopping, summarizing, and giving people a mental breather.



Be useful

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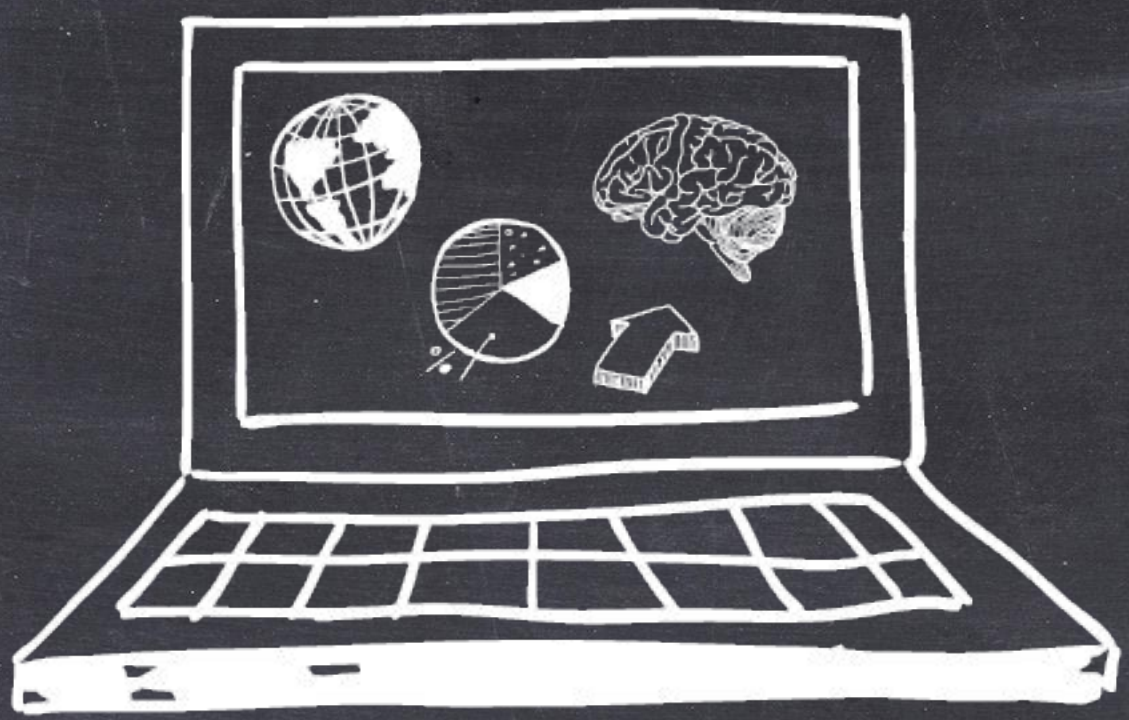
People learn less from this ....



... than they do this.

“Showing people meaningful, content-based visuals, as opposed to text, **lessens their cognitive exertion and improves overall experience**.

Chabris and Kosslyn (2005)

The brain processes visual information 60,000x faster than text

Hubspot

Internet content views can jump up 48% if it contains both photos and video

Hubspot

"Levie and Lentz (1982) looked at 46 experiments comparing pictures included with text, or text used alone, and found that 45 of the studies—all but one—showed that including pictures improved memory or comprehension. In one case, a group following directions in text illustrated with diagrams did an amazing 323% better than a group following the same directions without the illustrations."

"One study showed that illustrated text was 9 percent more effective than text alone when comprehension was tested right away, but that it was 83 percent more effective when the test was delayed, thus implying the reader's ability to remember the information better later, because of the illustration (Rusted and Coltheart, 1979)." Windows

"One average users only read 28% of words on a web page per visit"

_Nielson, J. (2008). How Little Do Users Read? and Helen McInnes (6 SlideShares) , Corporate Communications Specialist EMEA at NEC

It takes a person 1/10 of a second to interpret an image...text takes time.

Semetko, H. & Scammell, M. (2012). The SAGE Handbook of Political Communication. SAGE Publications and Helen McInnes (6 SlideShares) , Corporate Communications Specialist EMEA at NEC

Recall increases from 20% to 80% be adding images to text. Lester, PM (2006) Syntactic Theory of Visual Communication and Helen McInnes (6 SlideShares) , Corporate Communications Specialist EMEA at NEC

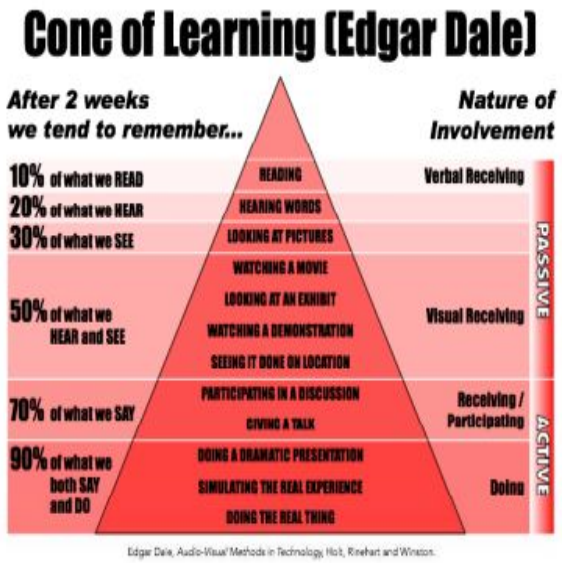
Text formatting, please
☺

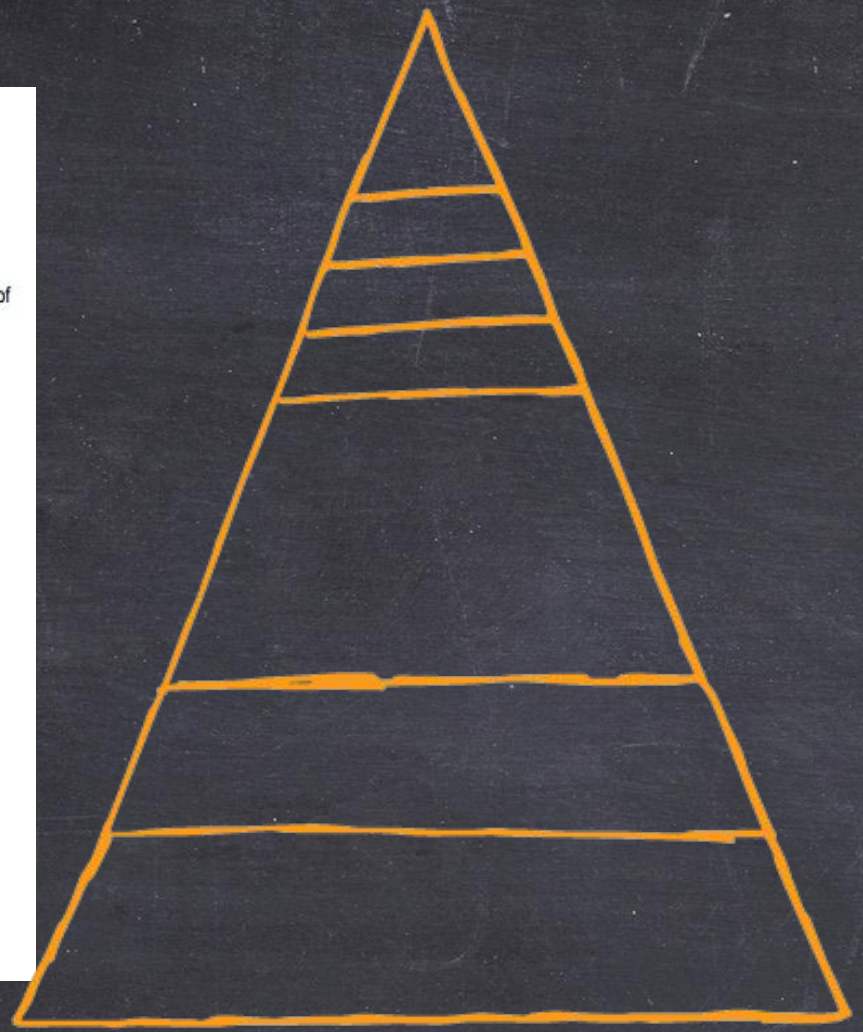
Cone of Learning (Edgar Dale)

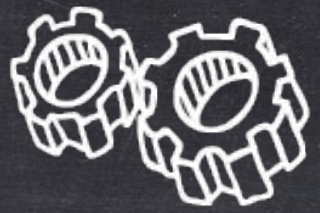
Figure 1. **Cited by a U.S. Company**
This graphic was accessed from the Website of an eLearning company.

The source cited by the company is Edgar Dale's *Audio-Visual Methods in Technology*, Holt, Rinehart and Winston.

If representatives from the company had researched the actual text of the citation (which is out of print but still accessible), they would have found that Edgar Dale's visual did not include percentages.







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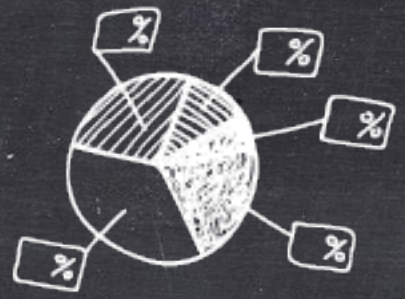

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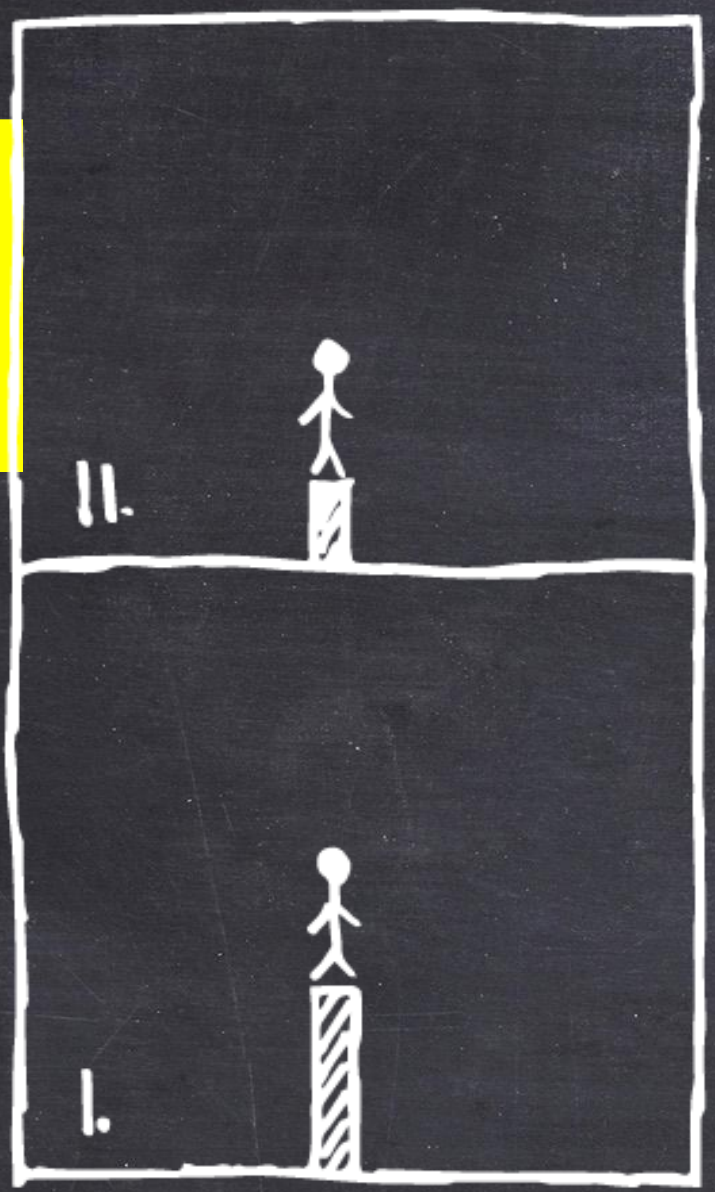


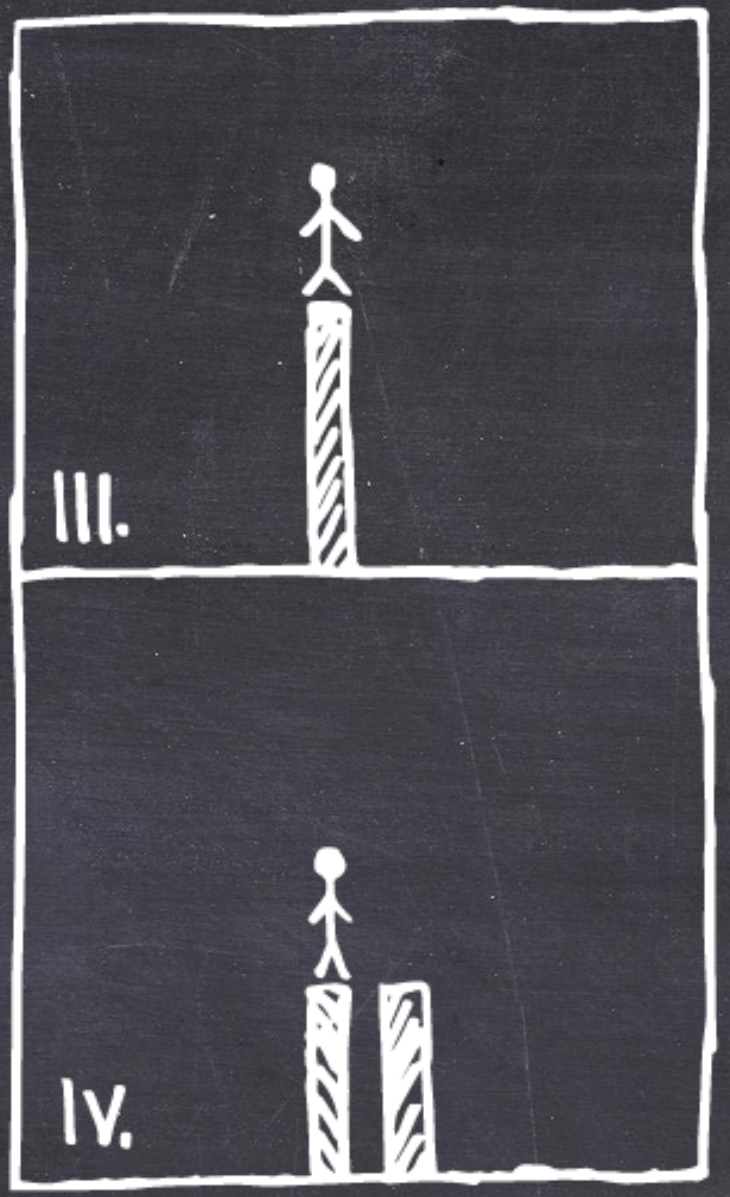
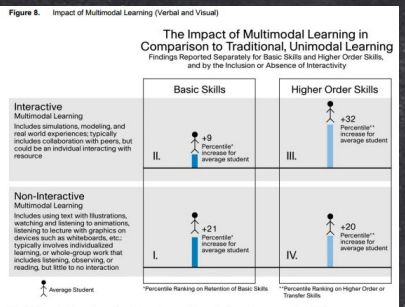


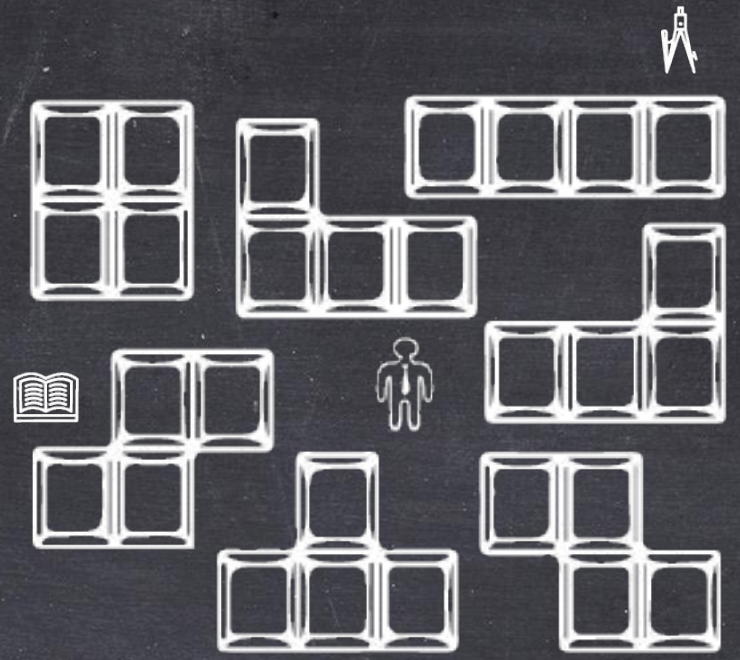
Figure 8. Impact of Multimodal Learning (Verbal and Visual)



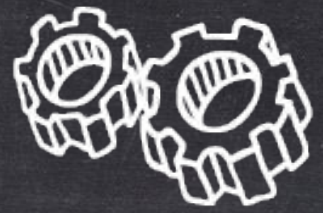
The findings in Figure 8 are based on meta-analytic analysis and are summarized below:

- **Quadrants I and II:** The average student's scores on basic skills assessments increase by 21 percentiles when engaged in non-interactive, multimodal learning (includes using text with visuals, text with audio, watching and listening to animations or lectures that effectively use visuals, etc.) in comparison to traditional, single-mode learning. When that situation shifts from non-interactive to interactive, multimedia learning (such as engagement in simulations, modeling, and real-world experiences – most often in collaborative teams or groups), results are not quite as high, with average gains at 9 percentiles. While not statistically significant, these results are still positive.

Teach new
things
within context

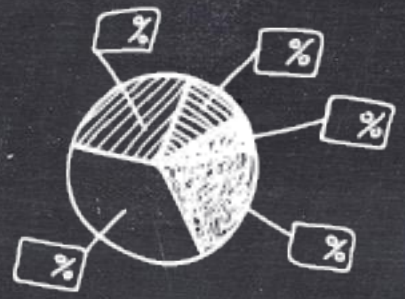


Gamif
y



Be useful

Be brief



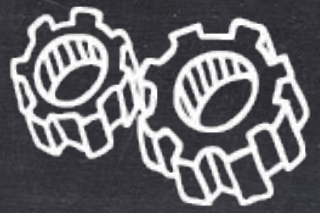
Be visual

Make it active

Be everywhere

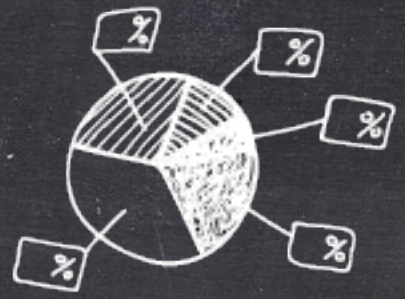
Sell it


1:32



Be useful

Be brief



Be visual

Make it active

Be everywhere

Sell it

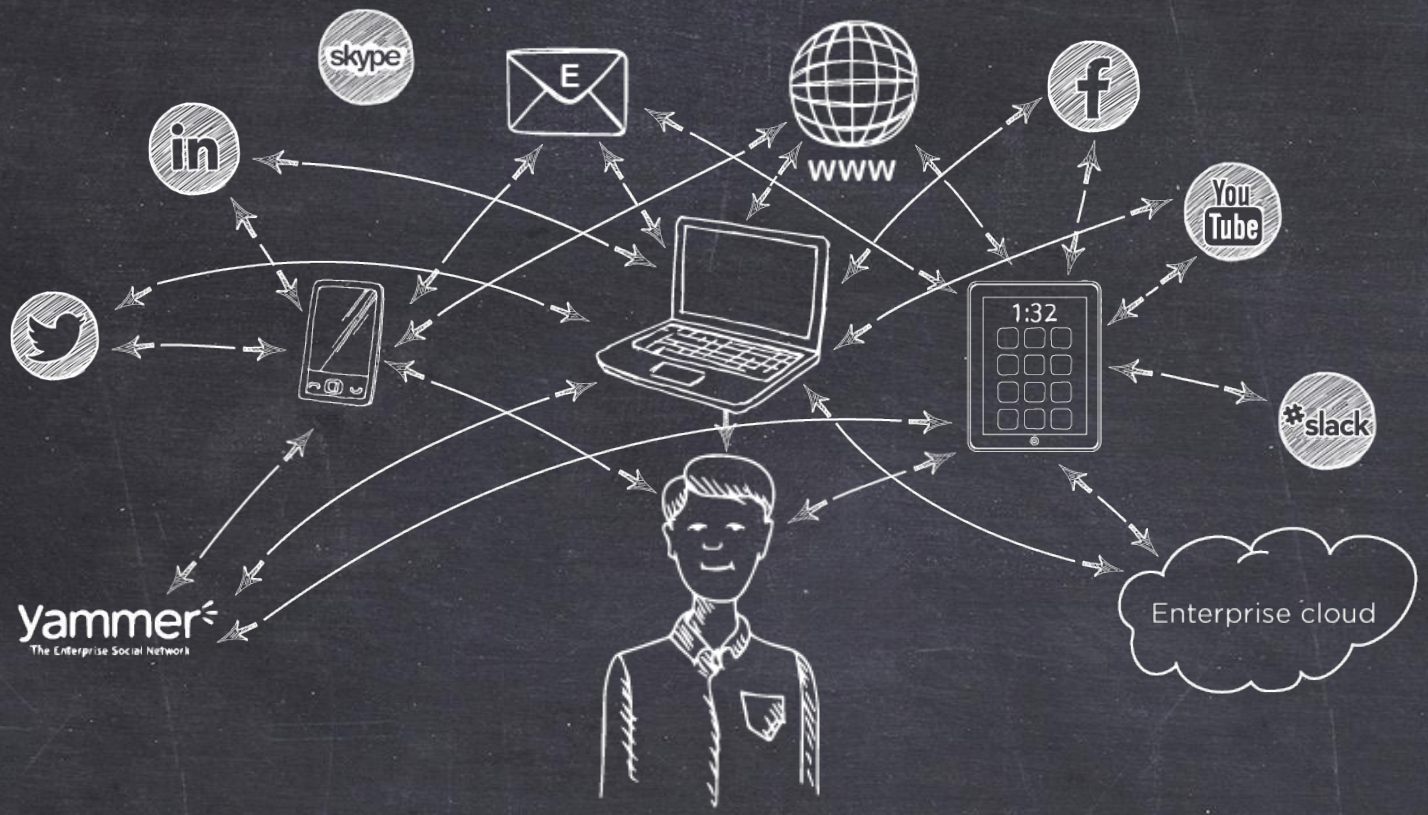
Text formatting, please ☺️

8x

Minimum number of message repetitions it usually takes for a message/idea/behavior to be embraced.

Particularly with big learning initiatives that are important to the success of new organizational changes – like new sales models, reorganizations, new strategies, new process, etc. – it is necessary to institute an internal communication and marketing campaign to build awareness and drive change. This is, however, equally true of lesser initiatives as well. You must constantly market your wares.

Recap:



Workforce Circa 2015

Recap:

Be useful

Be brief

Be visual

Make it active

Be everywhere

Sell it

We’re Bull City Learning blah, blah, blah

Visit us here, here, and here

Email Garry O’Grady if you want a copy of the slide deck

So, can I stop here? ☺️

PRESENTATION ENDS HERE – REST OF SLIDES ARE RANDOM DATA THINGS

Optional topics/items

Motivate

Use rewards

Here are our tips for doing this

- http://www.msmdesignzblog.com/are-mobile-devices-destroying-our-attention-spans/
- http://www.educause.edu/ero/article/distraction-engagement-wireless-devices-classroom, Example studies

Example studies turning digital media from a distraction to an engagement method

Summary of the modern learner:

- More distracted
- Spend less time on things
- Good visual learners
- Process information quickly
- Need just-in-time knowledge to aid memory
- Rely on external aids to help with memory

- The results of the study indicated that combinations of animation, narration, and text do influence the situational interest of learners.

http://www.cisco.com/web/strategy/docs/education/Multimodal-Learning-Through-Media.pdf (2008)

https://getd.libs.uga.edu/pdfs/dousay_tonia_a_201305_phd.pdf *EFFECT OF MULTIMEDIA DESIGN PRINCIPLES ON SITUATIONAL INTEREST OF ADULT LEARNERS*

- The results of the study indicated that combinations of animation, narration, and text do influence the situational interest of learners.

http://www.cisco.com/web/strategy/docs/education/Multimodal-Learning-Through-Media.pdf (2008)

- "One average users only read **28%** of words on a web page per visit" Nielson, J. (2008). How Little Do Users Read? and Helen McInnes (6 SlideShares) , Corporate Communications Specialist EMEA at NEC
- It takes a person **1/10** of a second to interpret an image…text takes time. Semetko, H. & Scammell, M. (2012). The SAGE Handbook of Political Communication, SAGE Publications and Helen McInnes (6 SlideShares) , Corporate Communications Specialist EMEA at NEC
    - The brain processes visual information **60,000x faster** than text Hubspot
    - "Human beings are highly visual and can absorb visual information faster and more easily than other kinds of information." Forbes
- Recall increases from **20% to 80%** be adding images to text. Lester, PM (2006) Syntactic Theory of Visual Communication and Helen McInnes (6 SlideShares) , Corporate Communications Specialist EMEA at NEC
    - "Most people forget a large amount of what they've read, but they do remember what they've seen." Forbes
- "Showing people meaningful, content-based visuals, as opposed to text, **lessens their cognitive exertion and improves overall experience**. Chabris and Kosslyn (2005)Chabris and Kosslyn (2005)" and Windows
- "The result of picture-based visual communication is improved learning and recall. Levie and Lentz (1982) looked at 46 experiments comparing pictures included with text, or text used alone, and found that 45 of the studies—all but one—showed that including pictures improved memory or comprehension. In one case, **a group following directions in text illustrated with diagrams did an amazing 323% better than a group following the same directions without the illustrations.**" Windows
- "Some researchers contend that including off-topic or irrelevant pictures and video clips in educational materials actually can have negative effects on learning. See Tversky and Morrison (2001), Mayer, Heiser, and Lonn (2001) and Mayer (2003)." Windows
- "One study showed that **illustrated text was 9 percent more effective than text alone** when comprehension was tested right away, but that it was **83 percent more effective when the test was delayed**, thus implying the reader's ability to remember the information better later, because of the illustration (Rusted and Coltheart, 1979)." Windows
- Internet content views can jump up **48%** if it contains both photos and video Hubspot

85% of internet users in the US watch online video Hubspot

- http://www.npr.org/templates/story/story.php?storyId=127370598

"All Things Considered" interview with the Author of "The Shallows"

  - He believes the internet is a medium based on the desirability of interruption.
  - It changes the way we read and alters the way we acquire wisdom, deep read, and concentrate
  - The "skimming the surface" of internet surfing affects human concentration outside of the computer and into the real world.
  - The brain is skilled at adaptation to its environment. The more adjusted it becomes to dealing with interruptions, the more adept it becomes to that mode of thinking, but lose the capability to concentrate and be introspective.
  - As people optimize their online skills, they lose creative & completive thinking.

- http://techland.time.com/2013/07/08/a-nation-of-kids-with-gadgets-and-adhd/

TIME article asking if devices are to blame for the increase in behavioral disorders (ADHD)

  - Today, 1 in 10 children are diagnosed with ADHD. In the last decade, diagnoses of ADHD has increased by over 50%.
  - This coincides with the amount of time spent in front of device screens: 7.5hrs/day… an increase of 20% from 5years ago.
  - When children are buried in their devices, what appears to be 'concentration' is actually not. Their focus on TV & video games is different than the attention needed to thrive in school and life. "It's not sustained attention in the absence of rewards, its sustained attention with frequent intermittent rewards." (sustain attention in the absence of rewards = book reading, sustained attention with intermittent rewards = video games with badges and level ups, etc..)

- http://www.huffingtonpost.com/2013/10/24/attention-span-book_n_4151059.html
  - Explains how the increase of digital information is contributing to the re-wiring of adolescents' minds; especially pertaining to reacting socially to interpersonal relationships. Also explains this trend affects working professionals.

Millenials are the trophy generation and they expect rewards just for showing up

- http://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=1070&context=journalismfacpub

Journal Article: Digital Distractions in the Classroom: Student Classroom Use of Digital Devices for Non-Class Related Purposes

- A common belief among teachers is that although technology has greatly improved students' research abilities & skills, it has created an easily distracted generation with short attention spans and has done more to distract students than to help them academically.

- A 2001 article concerning dropout rates in **corporate eLearning courses**, states th learners most frequently reported the following for the reasons of attrition:
  1. lack of time
  2. lack of motivation,
  3. poorly designed courses
  4. incompetent instructors

Learner perspectives on their own attrition - A widely distributed online survey reported that eLearners identified four primary factors affecting their decision to drop the course:

personal motivation
instructional design of the course/program
conflicts between study, and work and family
the feeling they had learned what they needed or wanted

- Carr (2000) reported dropout rates as high as 80% in online classes and suggested a rule of thumb that course completion rates are often 10 to 20% higher in traditional courses.

- The number of students taking online courses are greater than face-to-face students

- 1997 = 50k college-level students enrolled in online courses
- 2012 = 5.5M that are enrolled in at least 1 online course (2.6M taking a full-load of online courses) - **SOURCE**

- BUT attrition rates are 10%-20% higher in those taking online courses

- **http://www.thejeo.com/Volume4Number2/Angelino%20Final.pdf**

2007 Clemson University literature review: “Strategies to Engage Online Students and Reduce Attrition Rates”