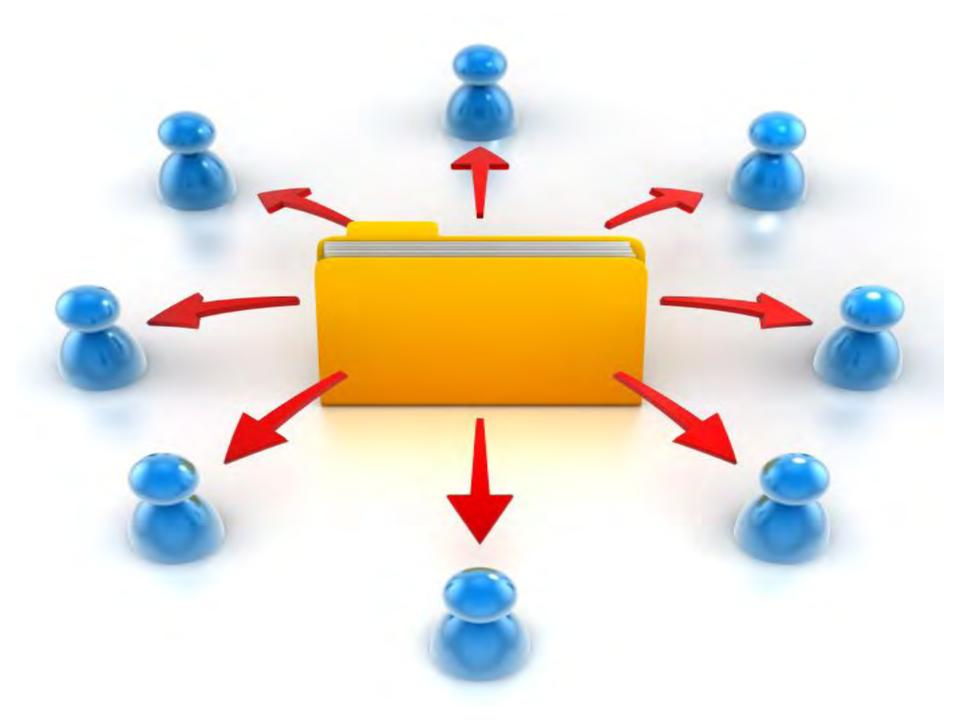
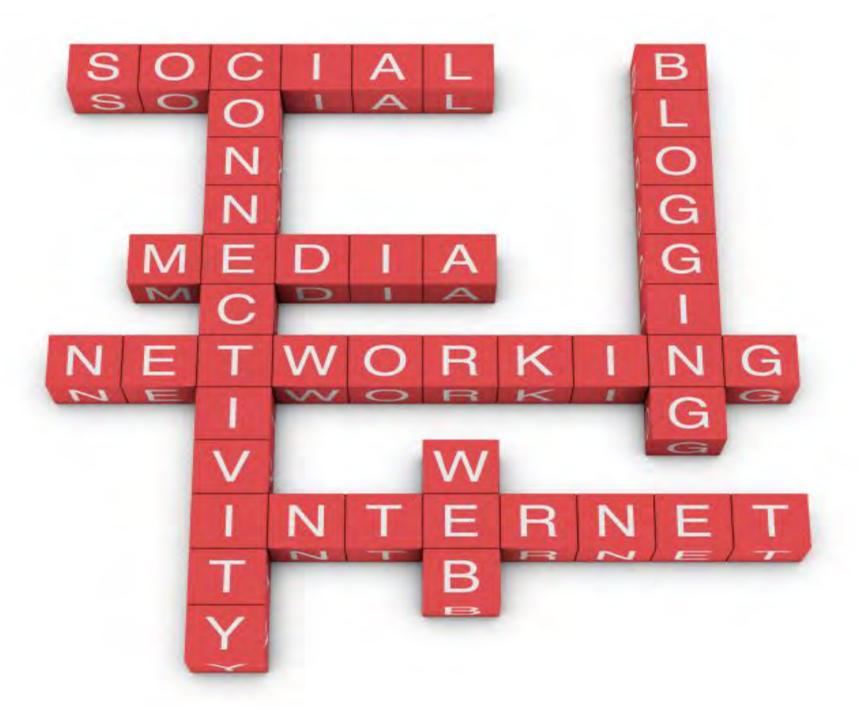


The 2020 Workforce



5 Generations – 47% Millennials -- Majority Women -- HyperConnected







Knowledge Workers

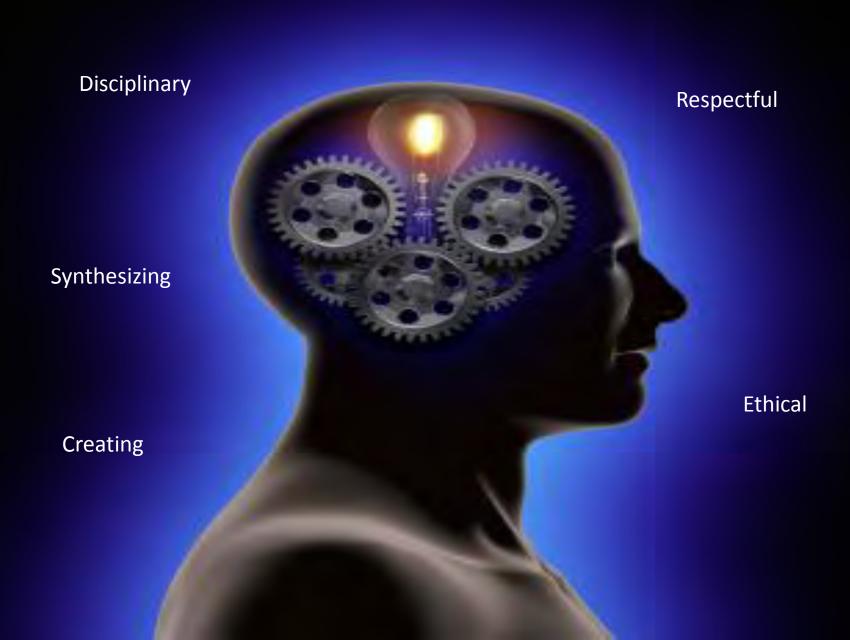


Trusted advisory, insight generating, judgment, discerning, collaborative, virtual teams



Simulations, project-based work...

Five Minds for the Future



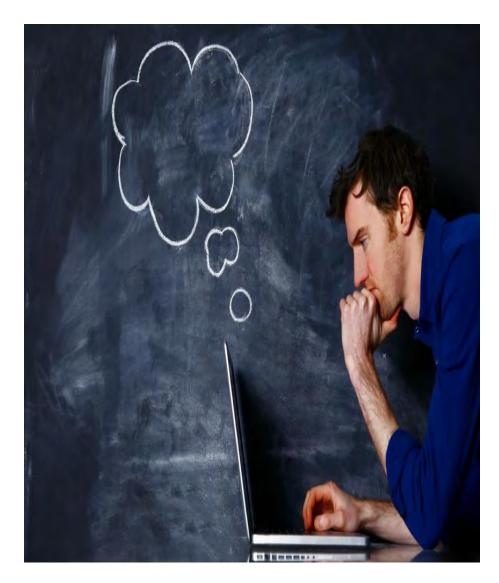
A whole mind....

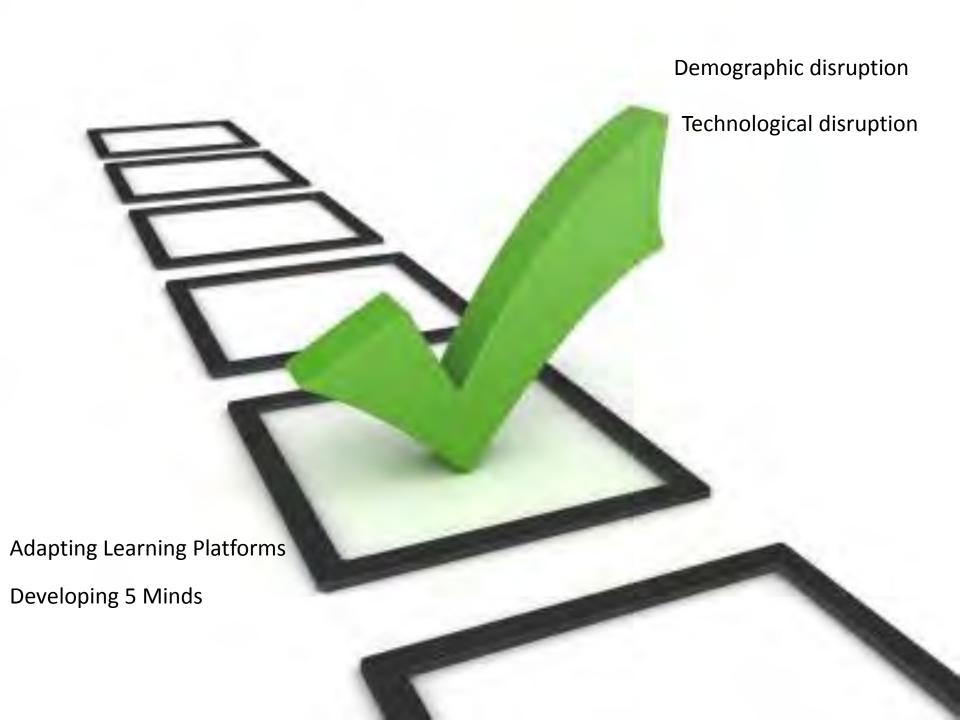


...a complete toolbox

From Gutenberg to Jobs...from the printing press to the laptop







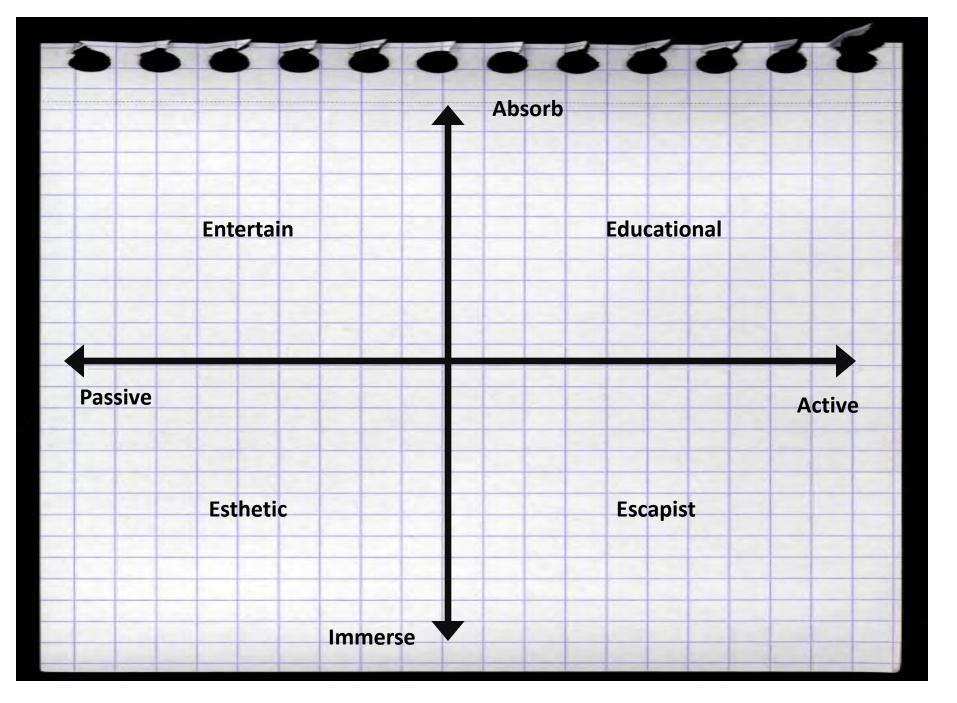


Economic development through the ages....



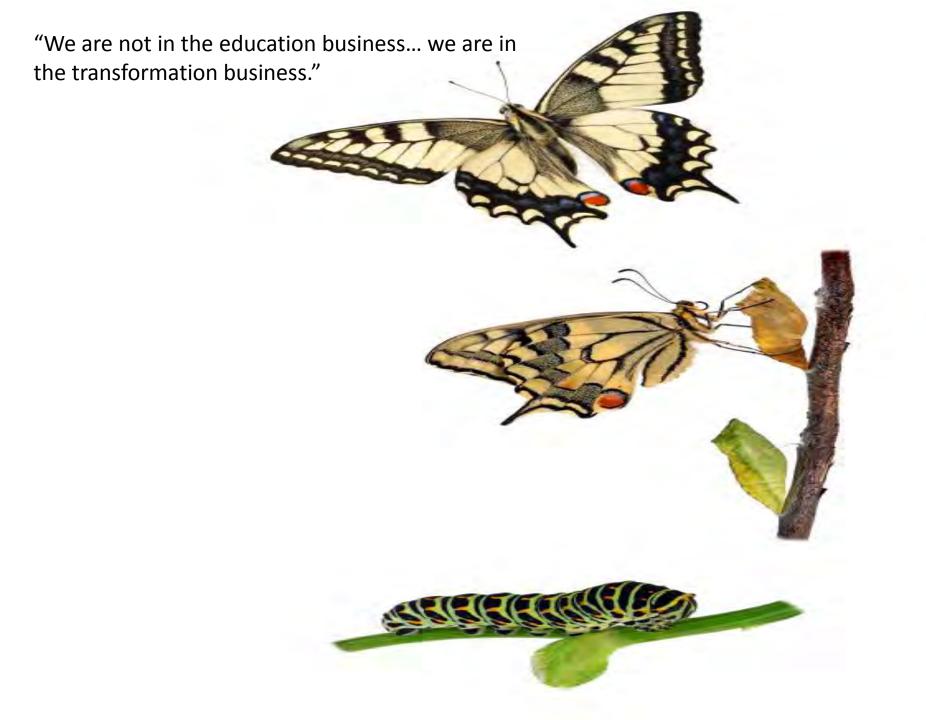














Words to paper

Linear

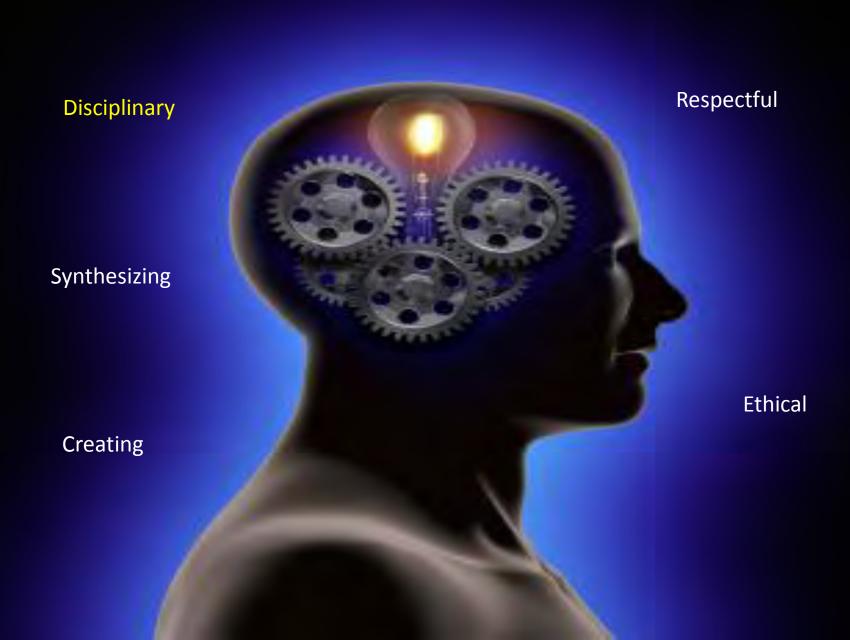
One to many

Exclusive expertise

Static



Five Minds for the Future







A book...co-created by an informed community...

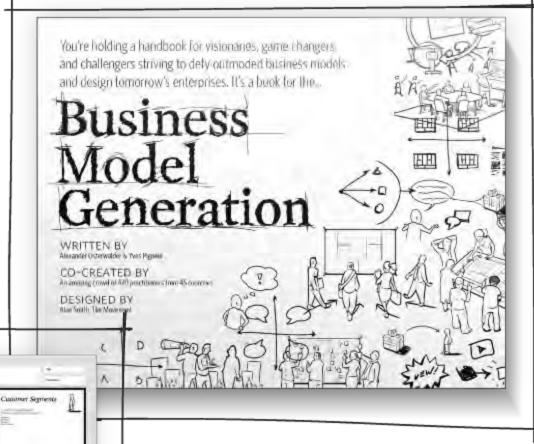
The Business Model Canvas

Cord Straignere

Key Activities

Controver Relamonships

Revenue Streams

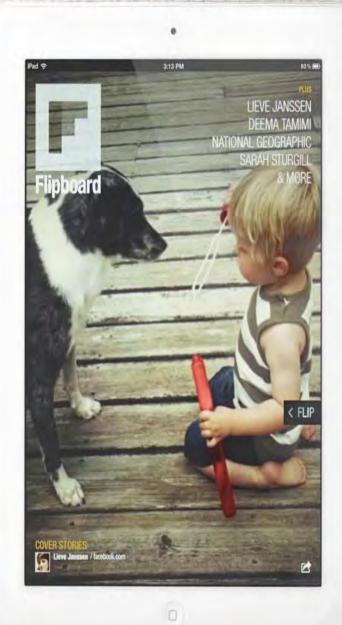


exp

...intended to be experienced as an activity

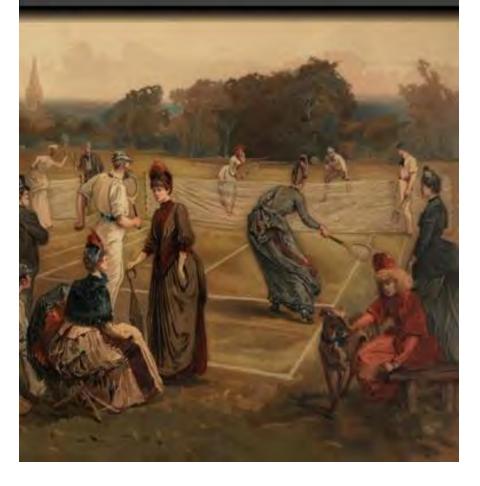


Social Magazine
Instantly Personal
Share to Networks



Moving beyond the database...

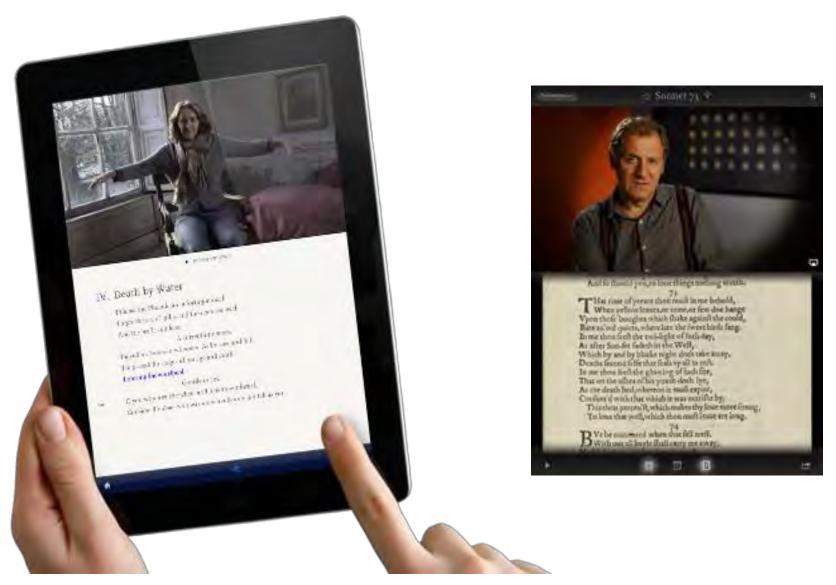
Tennis: A Historical Collection





...toward human curation of artifacts, media and tools

Tablet-Based multimedia apps....360-degree views of content



The Wasteland The Sonnets



A Participatory Indicative

Digitize
Preserve
Disseminate
Interpret







In their insightful forecast of <u>The 2020 Workforce</u>, Jeanne Meister and Karie Willyerd describe the changes our economy is experiencing as technological and demographic developments transform the nature of work, the organizations that do it, and the skills required to be successful at it. They describe a world that would be difficult to imagine if it were not only eight years away. But given the technological developments across the last decade, it feels like a well grounded assessment of where we are going.

These changes have profound implications for higher ed and publishing as well.

So across the next few minutes, I'd like to introduce you to some of the reading I have been doing about these changes and to pose for you a few early hypotheses about their impact on the worlds we work in...and to essentially argue that shifts in the nature of our workforce and economy are offering profound opportunities for both education and publishing --- if only we can take advantage of them.

So two disruptions --- one demographic and the other economic, and implications for both higher education and publishing....

First, allow me to share with you what is so different about this 2020 workforce...

Page 2

What could possibly be so different about a workforce just eight years away?

Meister and Willyerd argue we can expect a workforce comprised of five generations working alongside one another, as older workers retire later and millennials arrive on the scene.

It will be a workforce where the entering associates will be using technology far more sophisticated than the companies that hire them, thus driving a "bring your own device" culture that threatens to upset IT departments and planning.

It will be a context in which it will be possible to:

acquire,

use,

and integrate talent

...from around the world even while connecting this workforce to anyone, anywhere, at any time, leading to asynchronous collaboration and the diffusion of virtual teams within and across organizations of all sorts.

Turn page....

Beyond the demographic shifts in which millennials will comprise more than 47% of the workforce, and will bring women into the majority, it will be a workforce so embedded in a knowledge based economy, and so dramatically shaped by globalization, that it will demand that companies embrace:

digital workplaces,

the ubiquity of mobile technology

and a culture of connectivity.

This all embracing connectivity and propensity to share will have some pretty interesting consequences...[turn page...]

Page 4

For instance,...

Meister and Willyerd tell us this will "blur the lines between work and leisure", coining the phrase "weisure time" to describe the new reality.

It will be a workforce whose embrace of social media will have led it to adopt a "participatory" approach to everything, and thus not be willing to wait for exciting new appointments and responsibilities or for structured and centralized learning experiences. In short, it will be dynamic, energetic, entrepreneurial, a little bit unfocused and most likely difficult to manage.

So just imagine how much fun they must be in class...

Turn page...

Page 5

As challenging an environment as that is for me as a businessman, it is equally challenging to you as leaders of higher education institutions. While I may be affected by all those changes in 2020, you are already feeling its effects because the drivers of this change are now students at your universities. They crowd your lecture halls, drain your broadband capacity, demand the flipping of your institutional teaching model, and are hungry for new skills that will prepare them for 2020 and beyond.

Meister and Willyerd point out that this new generation needs a technologically integrated education that emphasizes:

problem solving,

the development of judgment,

data analysis,

relationship building

collaboration and communication.

And this is most likely caused by changes in the type of work people are doing....

Page 6

By 2020, with the rise of the global workplace, they conclude that there will be a shift from transactional work toward more value adding work that will demand higher order skills --- skills that they argue are perfectly suited for this generation that has been nurtured on technology and skills that can be developed using technology.

In the knowledge economy of 2020, for instance, knowledge workers will spend more than one day a week looking for information.

So developing their ability to find credible, authoritative information, analyze and synthesize that raw information into insightful conclusions and then apply it to real-world problems should be the central focus of learning institutions today.

Implication for publishing --- getting better at supporting SEARCH/DISCOVERY is critical....Discover, gather, create, share....

Turn the page....

Page 7

Fortunately, technology is perfectly suited to help.

The emergence of learning simulations and game-driven approaches to teaching support the kind of project-based experiences that will prepare today's students for tomorrow's global careers. Further developments....

lecture capture,

audience participation technology,

social media-based collaborative tools,

Massively Online Open Courses (MOOCS)

and emerging research tools that support analysis and synthesis "in the cloud"

Atlas.TI,

Mendeley, and other annotation applications), these technologically intermediated learning approaches extend the university into the global environment.

In doing so, they place the student in a global network where they will develop the sort of communication, collaboration and problem solving skills that will position them for success.

Page 8

Now, as much as I appreciate Meister and Willyerd's book, I believe that in many ways this is not unprecedented, and that, as Kent Anderson tells us, "cultural precedents largely withstand the whims of technological change", meaning that technology will always have a secondary role to the cultural goals of scientists and academics.

So, with all this cheerleading for technology, allow me to make a reference to Howard Gardner's wonderful work <u>5 Minds for the Future</u>, his delightful essay on the intellectual mindsets necessary for success in the future and, in my opinion, a trenchant argument for the university's traditional role in developing the "whole person".

He tells us that the future will demand leaders who have developed the following "minds": disciplinary, synthesizing, creating, respectful and ethical. In other words, content mastery will not go away but in fact will be more important than ever, and when coupled with the synthesizing mind, the ability to integrate ideas across categories and boundaries, and the creating mind, the capacity to uncover and clarify new problems, questions and phenomena, students will need universities to manage the vast amount of information that now exists, test their knowledge in "safe" reality-based contexts, and communicate out their learning with collaborators around the globe.

And publishers have to feed into each of these minds in potentially new ways...

Page 9

So in a world awash with data and drowning in "voices", how does a mature person make decisions and choose between alternatives?

Clearly, there is a role for technology here, but teaching our students judgment and the softer skills of perspective, respect and ethics remain vital. Creating an awareness and appreciation of differences among people, and teaching them to fulfill their responsibilities to each other as citizens of a global community is central to the university's mission and more important than ever for a global career. And there is good news in all of this --- as I said, none of this is unprecedented!

As Chad Wellmon tells us in "Why Google is not making us stupid or smart": "technology is not an abstract flood of data nor a simple machine-like appendage subordinate to human intentions, but instead the very manner in which humans engage the world." People have always engaged with technology, been overwhelmed by it, thought that the next innovation would "change everything".

But the importance of people and how they interact with technology has never been attenuated. In other words, in the 2020 workforce, successful people will succeed less because of technology per se and more because of their ability to mediate technology to support their development of insight, perspective and knowledge.

Page 10

This is true because for centuries universities have played a critical role in helping people navigate the difficult decisions regarding technology and its uses, whether that technology was the printing press or the internet. And by doing so, universities have prepared centuries of men and women to live in a world that has, seemingly, always been threatened by technology and information overload.

So yes, technology can help prepare the next generation for global careers--- by supporting this generation's desire to participate, express themselves via blogs, build collaborative solutions via wikis and take learning outside the classroom and embed it in community-based challenges.

Technology can mediate these experiences, marshall the resources to execute them, and gather the outputs for further analysis and dissemination. Individuals with experience in such a technology-mediated learning environment are more likely to succeed in the workforce of 2020 and beyond. But universities will continue to provide the all-important context and understanding without which the technology would be useless anyway.

So let's recap....turn page

Page 11

So let's recap:

There's a demographic disruption driving a wave of technological disruption...

Universities are adapting teaching methods, platforms and tools to reinforce their longstanding tradition of teaching the "whole person"

To use Howard Gardner's words --- universities are positioning themselves to develop the five minds

And in that respect I think they are well situated to serve this new demographic as it moves thru higher education and into the workforce...

An important question is how well situated is publishing to help ----I have a few thoughts on that, but I want to hold off because...

There's still more disruption....

Page 12

An additional driver of disruption emerges from a profound shift in our economic context ---toward what two authors, Joseph Pine and James Gilmore, have called The Experience Economy.

Their idea is a very straightforward one --- that we have moved beyond the manufacturing and services economy we are so familiar with, and have evolved to the next level of economic development where the driver of value is not the thing we make or the intangible offering we provide, but is instead the memorable experience we create or stage...

And this change has critical import for both academia and publishing that, when coupled with the earlier discussion of technology and demographics, means the road ahead could be quite bumpy.

But as I said previously, universities are well positioned to take advantage of this change as well. The question is how well suited is publishing...

Page 13

Let me illustrate the development Pine & Gilmore discuss ---- in their view, the world has progressed economically in the manner you see here.

From the left, a commodity based economy where value is derived from extraction to a goods based economy where value emerges from the making of something tangible, to services where value arises out of the delivery of an intangible offering of some sort to now experiences, where value is comprised of the memorable experiences that are staged for us...

You see off to the far right where they think this is going --- ultimately toward a transformation economy, where value resides in the guiding of aspirants toward a life changing event. More on that later....

What I want you to take away from this is that in this new economy experiences represent the basis for economic activity and such experiences are in fact "co-created" ---there is no producer or consumer, but we are all "prosumers", of information-based goods wrapped by informing experiences that offer value to us as potential transformations of ourselves, our context and our futures.

Left to right --- fungible, tangible, intangible, memorable --- with the latter being ultimately inherently personal in nature --- highly customized...

This has profound implications for how people use content...people are no longer willing to be passive users of information...that demographic cohort we showed you earlier is very much inclined to use content differently than previous cohorts...

They want to build it...transform it...share it...

The consumption of content is part of the production of content and it is captured along a continuum from the Raw to the cooked...

Now, granted, some are better creators than others ---- but one thing is for certain, recent transformations have democratized the content building process and technology supports more inputs and activity than ever before...so that disruption is rattling publishing very dramatically....

People from all walks of life have taken advantage of this for some pretty specific reasons...

Page 15

And they do so in order to answer for themselves....the serious questions they face.

They have re-taken the stage from the sage...and with the new social technology in place, they are opening up the process of questioning to the crowds...has implications for learning obviously ----

Reference Scott Page's presentation at last year's CGS annual meeting --- diversity in complex systems....arguing for the inherent power of diversity to create wisdom

And **The New Social Learning** by Tony Bingham and Marcia Connor --- who argue about how "socialness" has overtaken learning as the assumed downloading of content uni-directionally--- instead, it is intermingling ideas, information and experiences...a multi-directional flow & process

Leading to content "mashups" --- new content comprised of old content, reformulated and passed thru the social experience...and there's that word again...experience

So the question remains ---how do we design memorable experiences?

Both universities and publishers have to learn how to stage memorable experiences....

Page 16

When you're contemplating building experiences, you're thinking along two dimensions...x and y axis --- from passivity to activity, and from absorbing to immersing...and you see how it creates four quadrants here....[run thru...]

What it is you're expecting the participant to do --- passively receive versus actively discover and build -- -that's the x-axis

And then what you expect to do for the participant --- help them absorb content/experience or immerse in it --- that's the y-Axis...

And each quadrant represents the output of the combined effort --- one to educate, the next to escape, the next to esthetically appeal and the last to entertain...

As educators, your eyes immediately went to the upper right --- but to really grasp what Pine and Gilmore are talking about here you should note that educational experiences, in fact all successful experiences, do all of these things simultaneously...

And for content providers, the same must be said --- to succeed at experientializing content, we need to work along the two axes as well...

Of course, the idea is to blend all of these together....

Page 17

Must incorporate all four of the above realms to design rich, compelling experiences...to do that, there are five steps....

T --- theme the experience --- provide the experience with a narrative purpose

H – harmonize impressions --- ensure all clues/signals reinforce the narrative

E – eliminate the negative cues --- get rid of any dissonant cues

M – mix in memorabilia --- create takeaways....

E – engage the senses --- stimulate every sense....

For universities...must be done...

At course level ---

At department level ----

At institutional level ---

Like universities, Content companies must find a way to do this...must transform content into an activity of sorts...

For Pine & Gilmore, their research has led them to conclude that the "Thing" has become less important than the "doing"...leading to their suggestion that we all "-ing the Thing."

And focus our efforts on getting people to interact with us and what we produce.

- ----BLOGGING
- ----BOOKING?
- ----'ZINING?
- ----NUGGETIZING?
- -----WORKSHOPPING?

Their view is that Knowledge --- is experiential information ---- intelligence gained from and applied thru experiences.

And they argue that focusing on the "How" as much as the "what" is precisely the core distinction between mundane services and memorable experiences...

Which means content companies need to be more focused on workflow rather than output of workflow --- they need to understand research processes and activities much better than they do now....

Which brings us to transformations....

Page 19

...which are, according to Pine & Gilmore, "effectual". In the economic cycle of development from mass to individual and from market to end user, getting to transformations means committing oneself completely to what is truly needed by the end user...

...it's about identifying a gap between current reality and future state; diagnosing aspirations, staging transforming experiences and then following up.

I can think of no institution better suited to this than universities...

Here's a quote from John Quelch, Dean of the London Business School which captures the notion perfectly...

Universities are, in fact, perfectly positioned to take advantage of this disruption --- especially if they remain true to their values...

Why might this be the case....?

Universities create context....which is to say, they create and imbue meaning in and for information, content, experiences...

And they create a real sense of place ---which is critical to experience --- as opposed to sterile space (Henri LeFebevre's notion of space as "reproduction of social relations") and central to Pine & Gilmore's thesis...

But to steal from another fascinating book, **Abelard to Apple** by Richard Demillo, what universities must do is to embrace a shift.

Away from: destructive competition, needless expense, hierarchy, mass production and rigidity...

Toward: universal access, open content, new technology

They must embrace the inconsistency that lies at the core of the innovator's dilemma as outlined by Clayton Christiansen ---successful organizations focus on executing strategies that worked in the past...but what is needed is the "abandonment of carefully constructed/productive methods of the past for untested and not widely accepted approaches for the future"....

I actually believe universities are well positioned to do this because so much of their effort is directed toward experiences and transformations.

But if it is true of universities, than it is doubly true of publishing...

Page 21

And IMHO, I would say publishing is profoundly affected by this disruption--- because all of the changes we've discussed ---the demographic, the technological and also this latest evolution in economic development, have implications for those companies focused on CONTENT.

I try to capture my sense of the disconnect btw this new world and publishing's traditional posture here with this illustration....

Traditional publishing is....mostly about the "THING" --- that is, the content itself and its mode of presenting is decidedly outmoded for that demographic of student we discussed, the technological trends we are facing...[run thru]

Transition --- and the problem with that is[turn page]

Only one of the five minds for the future has something to do with content --- the area that publishing occupies traditionally....

And take a look at these categories ---as I said, only one strictly speaking is about CONTENT. Two are about "ACTING" and two are about "ATTITUDE".

So to the extent that publishing remains solely about static content --- it will feel the full brunt of this disruption and miss out on the "Experiential" revolution that Pine & Gilmore discuss.

So "content businesses" must somehow find a way to move toward acting --- like synthesizing and creating and also find a way to assist in the development of respectful and ethical minds....

Page 23

In other words, we too have to find a way to turn THIS...

The notion of CONTENT as THING...into...

Page 24

Into...THIS...

The notion of CONTENT as DOING

Now don't get me wrong. I love books as much as the next guy --- and enjoy escaping into books of all sorts...

But remember that "escape" is but one quadrant on the matrix --- and we need to find a way to build a raft of activities around content which, when summed up, become an experience that is memorable...

And keep in mind as well ---even with the best book imaginable, I may not agree with all of it —so how do I engage it when I start to disagree with it, or have my own ideas about it...? Now, in the current state, I am out of luck. I guess I just have to go write my own book on the topic I have just read....rather than add to what has already been created in real time.

Fortunately, we are starting to see some evolution here in publishing....

Here's an interesting example....

A book meant to inform action within a community of entrepreneurs --- built off a series of workshops -- and brought together thru co-creation. Focused on designing business models for new companies:

Defines --- key activities, key partners, key resources, cost structure, customer relationships, customer segments, value propositions, channels, revenue streams

Results not just in a book behind covers...but a canvas meant to drive conversations and internal workshops and a website where additional conversations about business models occur.

Content is evolving and growing based off participation by the community of engaged contributors....

Another example...this from the tablet world...

Page 26

A great example here from FlipBoard ---- a social magazine, a platform for intregrating one's content into one's social narrative --- able to create mashups that better reflect your world and then turn back your interpretation into your social network...

Share what's informative, transformative, "earth shattering" or mundane ---

Build an information channel that reflects your vision of who you are....what you want to know, learn or do...when you want it

And another that illustrates the evolution nicely...

Page 27

This one from BiblioBoard ---- and National Geographic

Bringing the database off the "server" and putting information/content at one's fingertips on mobile devices...

Reinjecting the "human element" into the curation equation --- an equation that has emphasized algorithms and "SEARCH" since Google's founding, and lost the sense of wisdom that comes from human participation as opposed to the raw "INTELLIGENCE" represented by computer code...[Reference 2001:Space Odyssey]

Discuss Example on left...make personal connection to one on right....

My point in offering up this example is to say that the extent to which publishing fails to move toward interactive platforms for the distribution of content, platforms that allow its malleability, reconstitution and, sharing and transformation, it will remain disrupted forever.

FlipBoard and BiblioBoard offer two nice examples in the right direction. One more...

Page 28

This one from TouchPress, a UK company that focuses on creating dynamic and interactive research tools ---that are just plain fun to use.

Wrapping video and audio around text, and other artifacts related to the matter at hand...giving a 360-degree view of the material and engaging the user in an experience/performance on the content...

To the left --- The Wasteland app ...a staged performance by an actress, audio clips of numerous readings and interpretations, actual handwritten copies of the poem and Eliot's notes, as well as a glossary, and scholar's interpretations...

To the right --- Shakespeare's Sonnets...videos of actor's readings of the sonnets, text of the poems, as well as handwritten versions etc....scholars' perspectives and so forth

Now there's still a way to go here --- imagine building more tools into the apps, allowing notation, drag and drop features, compilation features, and lesson planning...

I said one more example...but I lied. I want to finish with something that is really cool.

A great example of participatory, experiential learning and publishing....

Page 29

Transcribe Bentham is an award-winning <u>crowdsourced</u> manuscript transcription project, run by <u>University College London</u>'s Bentham Project^[1], in partnership with <u>UCL Centre for Digital Humanities</u>, UCL Library Services...

The project was launched in September 2010 --- *Transcribe Bentham* is making available, via a transcription interface based on a customised <u>MediaWiki</u>, high-quality digital images of UCL's vast collection of manuscripts composed by the philosopher and reformer, <u>Jeremy Bentham</u>,

60,000 manuscript folios (an estimated 30,000,000 words).

The project recruits volunteers to assist in transcribing the material, and thereby contribute to the Bentham Project's production of the new edition of *The Collected Works of Jeremy Bentham*. Volunteer-

produced transcripts are also uploaded to UCL's digital Bentham Papers repository, ^[2] in order to widen access to the collection, and ensure its long-term preservation.

In September 2011, *Transcribe Bentham* was honoured with an Award of Distinction in the Digital Communities category of the <u>Prix Ars Electronica</u>, the world's foremost digital arts competition. [10] ...

...has 'the potential to become a standard tool for scholarly crowdsourcing projects', and that *Transcribe Bentham* as a whole has the 'potential to create the legacy of participatory education and the preservation of heritage or an endangered culture."

Page 30

This great example comes from a professor at NYU who during a sabbatical decided to experiment with the notion of creating a social book experience ---perfect example of what I have been getting at here...this from a project on Thomas More's <a href="https://doi.org/10.1001/june-10.1001/jun

...I like their framework here of "read, write and rethink" --- the entire platform is meant to drive interactions between readers, and provide opportunities to build on what already exists...as well as anything new that gets created....

Social book platform ---allows annotation and collaboration on annotation ---sharing of notes and "conversations" btw readers....

Wikitopia...platform for capturing new content related to Utopia....

I love their unofficial motto as well:

"Open to criticism, open to participation, open to re-creation..."

This is central to the thesis that experience is now the organizing principle for content...

So guite an adventure we are on...