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Fernuniversität in Hagen  
Germany

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Who let the drop out?

160,000 enrolled
20,000 completed
Who let the drop out?

Mooc completion rates ‘below 7%’

Open online courses’ cohort much less massive at finish line

May 9 2013

The average completion rate for massive open online courses is less than 7 per cent, according to data compiled by an Open University doctoral student as part of her own Mooc studies.
On the other hand, there are the numbers that gave Thrun pause. MOOC enrollment has soared, but completion rates are abysmal. According to a 2013 study, an average of only five per cent of the students in seventeen Coursera classes offered through the University of Pennsylvania actually finished their classes. Other estimated completion rates hover below thirteen per cent. And not all of the students who completed their courses necessarily passed.
Can data help save MOOCs?

October 26, 2015  23 Comments  

Sean Cummings

Although initial enrollment rates appeared impressive, the subsequent decline in enrollment numbers as well as course completion rates in MOOC programs such as Coursera — an independent, for-profit platform used by Stanford — proved a disappointment to advocates of the new technology.

Coursera attracted more than 1.7 million students within a year of its founding, according to a 2012 New York Times article. But completion rates continue to remain low, suggesting that MOOCs sometimes fail to teach as effectively as they aspire to.

Udacity, another MOOC platform provider, once saw its completion rate fall to a mere 10 percent, leading cofounder Sebastian Thrun to express his concern in a 2013 interview with Fast Company.

“I was realizing, we don’t educate people as others wished, or as I wished,” said Thrun.

Evidence from a 2014 Social Science Research Network (SSRN) paper by professors at Harvard and MIT also tempered the optimism of MOOCs creators. The paper examined 17 MOOCs from the two schools and found that only five percent of over 800,000 participants ever completed their courses.
Who let the drop out?
Research about MOOCs

- 166 scientific publications in 6 years
- TEL: 3500 publications in 10 years (Kalz & Specht, 2011)
Who let the drop out?

Jordan, 2015
Emerging Student Patterns in Coursera-style MOOCs

- No-Shows
- Observers
- Drop-Ins
- Passive Participants
- Active Participants

MOOC Weeks:
- Pre-Course
- Week 1
- Week 2
- Week 3
- Finish
Traditional completion perspective

Completing learners are all learners who participate in all learning activities or even receive a certificate.
What do the learners say?

I have completed all of the online courses I’ve been interested in over the past year, albeit from a personal point of view. That means I’ve watched/read all the materials and tried to understand all the assignments, occasionally reading up additional content in my own books and other sources. What has kept me with 2 exceptions, from completing the course from the certificate viewpoint are other obligations. A doctoral thesis to be written for real credit.

Echoing the few comments here that note that non-completion of MOOCs isn’t necessarily a problem. Not saying it’s not a problem or the fault of the MOOC in some cases, only that retention and completion are organization frameworks put around learning by institutions for management and credentialing purposes, not for learning’s sake.

Many people sign up for such courses in order to “audit” – to follow some of the material but not all, dipping in & out as they please. Course instructors seem aware of this, even making reference to whether people are “certificate seekers” or not. I suspect that if there was an option to check how many of these “drop outs” simply had a different success criteria to what people are used to, people would be rather surprised. Maybe the option to check a box from the start saying they are not seeking the certificate would make it possible to ascertain the true “drop out” rate.
A [...] more important limitation [...] is the tendency to ignore the perspective of the individual [...] Such definitions of dropout [...] imply connotations of inferiority [...] of the individual dropping out.

Tinto & Cullen, 1973
Learning in a MOOC

What my friends think I do

What my mom thinks I do

What the media thinks I do

What my co-workers think I do

What I think I do

What I really do

[ Generate Image at www.whatireally.com ]
NEW YEAR’S RESOLUTIONS

1. Lose weight
2. Exercise
3. Drink more water
4. Quit smoking
5. Go to bed earlier
6. Drink less
7. Pay off credit cards
8. Remember birthdays
9. Phone mom
Reconsidering MOOC Completion Rates: THE INTENTION FACTOR
Justin Reich, Menschel Research Fellow, HarvardX

MOOC completion rates are often calculated as the # of certificate earners divided by the total # of people who registered for a course.

On average, 6% of all HarvardX open online course registrants earn a certificate.

That number is in keeping with the “low” completion number for MOOCs the media has often rightly zeroed-in on.

But... many learners sign up for a MOOC without ever intending to complete it. Looking at HarvardX learners who took a pre-course survey* reveals a different picture.

Hx Learners by Intention

<table>
<thead>
<tr>
<th>Intention</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intend to earn a certificate</td>
<td>58%</td>
</tr>
<tr>
<td>Intend to audit</td>
<td>25%</td>
</tr>
<tr>
<td>Unsure</td>
<td>14%</td>
</tr>
<tr>
<td>Intend to browse</td>
<td>3%</td>
</tr>
</tbody>
</table>

In HarvardX courses, on average, of students who...

- intend to earn a certificate, 22% actually do so
- intend to browse a course, 6% go on to earn a certificate
- intend to audit a course, 7.5% go on to earn a certificate
- are unsure of their initial intentions, 10% go on to earn a certificate.

The Takeaway: Students who intend to complete a course are 4.5 times more likely to do so than intended-browsers, and 3.5 times more likely to do so than intended-auditors.

* 28% of all registrants responded to our survey, 42% of active students responded, and 68% of students with a grade > 0 responded.

Reich, 2014
## Categories of intentions in OE

<table>
<thead>
<tr>
<th>Category</th>
<th>Unsure (%)</th>
<th>Browse (%)</th>
<th>Audit (%)</th>
<th>Complete (%)</th>
<th>Total Responses (n)</th>
<th>Response Rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data Analysis in Genomics</td>
<td>13</td>
<td>5</td>
<td>42</td>
<td>40</td>
<td>5,657</td>
<td>28</td>
</tr>
<tr>
<td>U.S. Health Policy</td>
<td>12</td>
<td>5</td>
<td>37</td>
<td>46</td>
<td>3,845</td>
<td>24</td>
</tr>
<tr>
<td>Science and Cooking</td>
<td>17</td>
<td>3</td>
<td>30</td>
<td>49</td>
<td>27,610</td>
<td>30</td>
</tr>
<tr>
<td>China: Part I</td>
<td>17</td>
<td>5</td>
<td>27</td>
<td>51</td>
<td>7,901</td>
<td>21</td>
</tr>
</tbody>
</table>

Reich, 2014
Categories of intentions in OE

Key results by Reich (2014)
Categories of intentions in OE

- Completing
- Disengaging
- Sampling
- Auditing

Source: Phil Hill
A new measurement model for OE

Kalz, Kreijns, Walhout, Castano-Munoz, Espasa & Tovar, 2015
MOOCs are open, but...

FOR A FAIR SELECTION EVERYBODY HAS TO TAKE THE SAME EXAM: PLEASE CLimb THAT TREE
... there are hidden filters and gates!
What has an impact on the IBG in open education?

SDL/SRL  
IT Skills  
Implementation Intentions  

Intention-Behaviour-Gap
Self-directed (regulated) learning

Individual Learning Dispositions

- Assess the task
- Evaluate Strength and Weaknesses
- Plan
- Apply strategies
- Monitor progress
- Reflect & Adjust

Ambrose et al., 2010
Self-directed (regulated) learning

Prior experiences with SRL and technology impact self-efficacy and motivation

SRL in a technology-rich context requires step-wise introduction and support

Lee, Tsai, Chai, & Koh (2015)
Self-directed (regulated) learning

Figure 1.1. A Hypothetical Learner-Control Continuum.

Exercise of control by the teacher

Exercise of control by the learners

### Consistency of intention and behaviour

<table>
<thead>
<tr>
<th>Consistent</th>
<th>Inconsistent</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Inclined actors</strong></td>
<td><strong>Inclined abstainers</strong></td>
</tr>
<tr>
<td>Intend to act and act</td>
<td>Intend to act, but do not act</td>
</tr>
<tr>
<td><strong>Disclined actors</strong></td>
<td><strong>Disclined abstainers</strong></td>
</tr>
<tr>
<td>Don’t intend to act and don’t act</td>
<td>Don’t intend to act, but act</td>
</tr>
</tbody>
</table>

Gollwitzer & Sheeran, 2006
Goal intentions are not enough!

THE ROAD TO HELL IS PAVED WITH GOOD INTENTIONS

Proverb

PICTUREQUOTES.com
Goal intentions

Gollwitzer & Sheeran, 2006

- predecisional
- preactional
- actional
- postactional

Strength of goal intention
Initiate goal-directed behaviour
Shielding
Review of quality and quantity of achievement
Goal intentions

Additional variable
Time interval between setting of goal intention and goal-related activity
“Forming a goal intention does not prepare people sufficiently for dealing with self-regulatory problems in initiating, maintaining, disengaging from, or over-extending oneself in goal striving.”

Gollwitzer & Sheeran, 2006
Implementation intentions

Implementation intentions define the

• when,
• where and
• how

of goal striving.

Meta review (94 studies, n=8000)
Effect size $d = .65$
Implementation intentions

“When situation X arises, I will perform response Y!”
Implementation intentions

“I will reserve each Tuesday afternoon to learn at my desk”

“When I cannot learn on Tuesday at home, I will skip football on Saturday to learn then”

“I will connect each morning for an hour to fellow student of the MOOC to discuss questions and assignments”
Implementation intentions

Imply the selection of an effective goal-directed behaviour...it is assumed that the mental representation of this situation becomes highly activated and more accessible.

Gollwitzer, 1999
Implementation intentions

Impact of implementation intentions on IBG
Do learners with implementation intentions in MOOCs are more likely to reach their goals?

Impact of contextualized cues on implementation intentions
Can situational cues support learners in MOOCs to develop implementation intentions?
MOOCKnowledge: http://bitly.com/moocknowledge

European cross-provider data collection of background and experiences of MOOC learners
SOONER: http://www.sooner.nu

PhD Organisational innovation
Accompanying research line

Fundamental research line

PhD SRL Skills
PhD Scalability
PhD Motivation
EMOOCs 2016 CONFERENCE
FOURTH EUROPEAN MOOCs STAKEHOLDERS SUMMIT
FEBRUARY 22-24, 2016 | UNIVERSITY OF GRAZ (AUSTRIA)
Thank you!

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Our heads are round so our thoughts can change direction.

- Francis Picabia