

Presentation by

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Workshop

Using the “Wisdom of the Crowd” to Support Teaching and Learning in Higher Education




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Introductions

Is crowdsourcing an effective method of gathering patient and public input in the design of an undergraduate diagnostic radiography curriculum?


helo  fy enw i ydy...

hello  my name is...

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Research in Health Professions Education
- M.Res and Professional Doctorate
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 bit.ly/1rS5smJ

 Joined July 2014

Workshop Roadmap

Using the “Wisdom of the Crowd” to support
Teaching and Learning in Higher Education

- Icebreaker
- What is/ is not crowdsourcing?
- Literature: Healthcare Education
- Crowdsourcing applications
- Crowdsourcing mechanics
 - Group Work
- Students as co-creators
- Acknowledgments
 - References



What is Crowdsourcing?

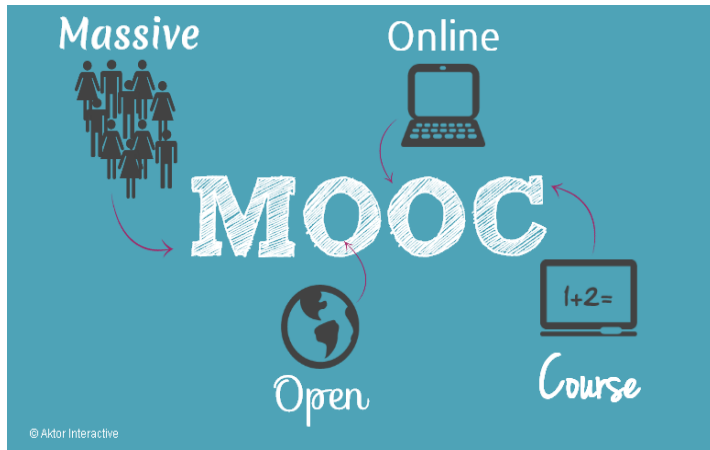
Works through an institution
outsourcing a function normally
performed by an employee/ group of
individuals

Users, known as the crowd,
form a community who voluntarily
undertake a task which typically
involves the pooling of knowledge
resources (Howe, 2006).

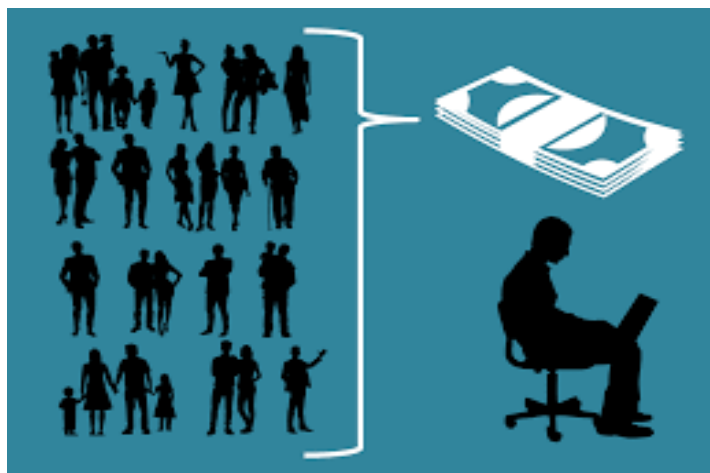
Creative, innovative, democratic
providing a wider access to people
internationally in less time and at a
reduced cost compared to traditional
methods (Schnek et al, 2009).



Crowdsourcing is **NOT**....



Crowdlearning



Crowdfunding

Creative and innovative

Crowdsourcing the curriculum:
Public participation in redesigning a planning
programme

(Evans-Cowley, 2011)

Year	Author	Aims	Subject Area	Crowd Numbers	Crowd Workers	Reward	Study Location	
2015	Penciner et al	Lesson Planning	Structure of a facilitated conference workshop	13	Experts attending a conference	N	Canada	
2013	Bow et al		Instructional materials	Instruction materials	120	Experts in field	N	USA
2016	Blakewell et al	Instruction materials Neuroscience		200	Experts in field	N	USA	
2017	Lewis et al	Radiology exam question		170	Experts in field	N	USA	
2014	Chen et al	Skills Assessment	Simulated robotic surgical skills	409 67	Amazon Mechanical Turk Facebook	Y	USA	
2015	Holst et al		Simulated robotic surgical skills	50	Amazon Mechanical Turk	Y	USA	
2015	Agadashi et al		Simulated cricothyrotomy procedure	30	Amazon Mechanical Turk	Y	USA	
2015	Malpani et al		Simulated robotic surgical skill	30	Amazon Mechanical Turk	Y	USA	
2015	White et al		Simulated robotic surgical skills	30	Amazon Mechanical Turk	Y	USA	
2016	Polin et al		Simulated robotic surgical skills	41	Amazon Mechanical Turk	Y	USA	
2016	Deal et al		Laparoscopic skills	203	Amazon Mechanical Turk	Y	USA	
2016	Powers et al			30	Amazon Mechanical Turk	Y	USA	
2016	Ghani et al		Robotic surgery: prostatectomy	30	Amazon Mechanical Turk	Y	USA	
2016	Kowalski et al		Basic Urological Laparoscopic skills	60	Amazon Mechanical Turk	Y	USA	
2017	Yeung et al		Laparoscopic skills	4	Not recorded	Y	USA	
2017	Vernez et al		Student Selection	Student selection in surgery	Not recorded	Amazon Mechanical Turk	Y	USA
2017	Lee et al			Student selection in surgery	Not recorded	Amazon Mechanical Turk	Y	Canada

St. John-Matthews, Newton, Grant & Robinson, 2018

Applying a Verification Tool

Paper	Clearly Defined Crowd	Task with Clear Goal	Crowd Recompense	Identified Crowdsourcer	Reward	Online Assigned Process	Open Call	Internet
Penciner et al	Y	Y	Not noted	Y	N	Y	N	Y
Bow et al	Y	Y	Not noted	Y	N	N	N	N
Blakewell et al	Y	Y	Not noted	Y	N	N	N	N
Lewis et al	Y	Y	Not noted	Y	N	N	N	N
Chen et al	Y	Y	Economic	Y	Y	Y	Y	Y
Holst et al	Y	Y	Economic	Y	Y	Y	Y	Y
Agadashi et al	Y	Y	Economic	Y	Y	Y	Y	Y
Malpani et al	Y	Y	Economic	Y	Y	Y	Y	Y
White et al	Y	Y	Economic	Y	Y	Y	Y	Y
Polin et al	Y	Y	Economic	Y	Y	Y	Y	Y
Deal et al	Y	Y	Economic	Y	Y	Y	Y	Y
Powers et al	Y	Y	Economic	Y	Y	Y	Y	Y
Ghani et al	Y	Y	Economic	Y	Y	Y	Y	Y
Kowalski et al	Y	Y	Economic	Y	Y	Y	Y	Y
Yeung et al	Y	Y	Economic	Y	Y	Y	Y	Y
Vernez et al	Y	Y	Economic	Y	Y	Y	Y	Y
Lee et al	Y	Y	Economic	Y	Y	Y	Y	Y

Crowdsourcing Mechanics

- Open versus pre-determined call
- Type of community: spontaneous not usually sustained.
- Tools used
- Size of the crowd
- Crowd motivations
- Power dynamics
- Of note papers discarded...

Group Work

How could you harness “the wisdom of the crowd” via spontaneous on-line communities to enhance the learning and teaching in your discipline?

Crowd *n* a large number of things or people gathered together
(Collins Concise Dictionary, 2018)

Addressing potential challenges in co-creating learning and teaching: overcoming resistance, navigating institutional norms and ensuring inclusivity in student–staff partnerships (Bovill et al, 2015)

Key Challenges:

- Inclusion selection
Whose voices are heard?
- Navigating institutional structures
How to manage large numbers?
- Academic and/ or learners
Who are the experts?

? Enabler ?
Crowdsourcing

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Questions & Answers

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