



Evidence synthesis software enabling ‘Fast, good & cheap’: An example review during the COVID-19 pandemic

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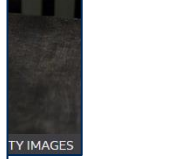
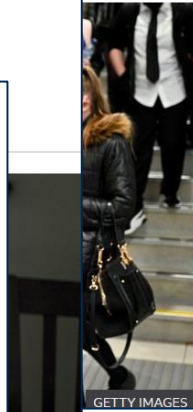
Schools & emergency remote education during the COVID-19 pandemic

- Abrupt switch to emergency remote teaching.
- Research gaps, especially within vulnerable populations and the role of parents.
- Many teachers and school leaders were looking to explore how other countries had reacted.
 - However, lack of time plus added stress.
- Evidence synthesis needed for policy and practice.
- Fast, good AND cheap?

Covid: Teaching in Wales 'must reinvent itself in a day again'
© 11 December 2020 | Comments

Covid: 'Xbox and PlayStation home-learning' for some pupils
By Jordan Davies
 BBC News
 © 7 December 2020

Covid: Laptop allocation for deprived pupils cut at some schools
© 24 October 2020



Rapid (living) review

- Accelerate and streamline the process of a traditional systematic review.

THIS REVIEW

- Limit the number of databases
- Conduct the review alone
- Limit to English-only
- Draw on previous reviews

Rapid (living) review

Search

- Use of previous reviews to construct search string
- WoS, EBSCOHost, Scopus, Microsoft Academic Graph, ResearchGate, Twitter

Screening

- EPPI-Reviewer
- 777 screened on title and abstract, 156 on full text
- K-12, teaching and learning setting, empirical, English language, during pandemic

Data extraction

- 89 studies included for data extraction
- Use of previous reviews to construct data extraction tool

Data synthesis

- Narrative synthesis
- Tabulation and interactive evidence gap maps

EPPI-Reviewer

- Keeps track of all stages of the review process
- Import references via a range of methods

(Thomas et al, 2020)

EPPI REVIEWER Beta Import/Manage Sources

Manage Sources Import Items PubMed

Step 2: Preview and import
[back](#) [Hide Preview](#)

Results: Total references = **1354**

Search Summary
 Search in PubMed for "COVID-19 AND schools" returned approximately 1354 Items. Displaying first 40 Items.

Show Results from Item: 1 to Item: 40 [Show](#)

Source Name	Description	Author(s)	Item ID	Date
JMIR research protocols	The Building Educators' Skills in Adolescent Mental Health Training Program for Secondary School Educators: Protocol for a Cluster Randomized Controlled Trial.	Parker BL; Chakouch C; Subotic-Kerry M; Batterham PJ; Mackinnon A; [et al.]	e25870	2021
Pediatric obesity	Physical activity behaviour and screen time in Dutch children during the COVID-19 pandemic: Pre-, during- and post-school closures.	Ten Velde G; Lubrecht J; Arayess I; van Loo C; Hesselink M; Reijnders D; [et al.]	e12779	2021

Source Name: PubMed Search on 2/25/2021
 Date of search: 25/02/2021
 Database: PubMed
 Search String: COVID-19 AND schools

EPPI REVIEWER Beta Microsoft Academic Browser

Feedback Help Melissa Bond Logout

Home MAG Simulations Show History Matching MAG Items MAG Admin MAG Search Selected Close/back

Microsoft Academic Graph Searches

Word(s) in title: "emergency remote teaching"

Publication date after: 1/1/2020

All publication types

[Search](#)

Combine searches
 Select 2 or more searches
 Select operator

Search results [Delete](#)

<input type="checkbox"/>	Search	search string	MAG search string	MAG Version	User	Date	Hits	ReRun	Import
<input type="checkbox"/>	20	Title: "emergency remote teaching" AND published after: 2020-01-01	AND(AND(W='emergency',W='...)	01/02/2021	Melissa Bond	2021-02-25T00:00:00	73	ReRun	Import
<input type="checkbox"/>	19	Title: "emergency remote education" AND published after: 2020-01-01	AND(AND(W='emergency',W='...)	01/02/2021	Melissa Bond	2021-02-25T00:00:00	20	ReRun	Import
<input type="checkbox"/>	18	Title: "online learning" AND published after: 2020-01-01	AND(AND(W='online',W='lea...)	01/02/2021	Melissa Bond	2021-02-25T00:00:00	4487	ReRun	Import

EPPI-Reviewer Screening

Add new codes

Edit codes

- Enable *auto advance*
- *Show terms* function highlights key phrases
- Use touch device
- Easy to edit and add codes or extra information

The screenshot displays the EPPI-Reviewer Beta interface. At the top left, the 'ePPI REVIEWER Beta' logo is visible. The main header area includes 'Item Details' and navigation buttons like 'First', 'Previous', 'Next', and 'Last'. On the right side of the header, there are buttons for 'Feedback', 'Help', 'Melissa Bond', and 'Logout'. Below the header, there are two checkboxes: 'Show terms?' (checked) and 'Auto Advance?' (unchecked), both highlighted with red boxes. The left sidebar contains a list of screening criteria, such as 'EXCLUDE not in English', 'EXCLUDE duplicate', and 'INCLUDE on title & abstract'. The main content area shows a document snippet with terms like 'online teaching', 'COVID-19', 'school', and 'teachers' highlighted in green. At the bottom, the author information is listed as 'Author(s) König J Jager-Biela, DJ Glutsch, N;'. Arrows from the text 'Add new codes' and 'Edit codes' point to the '+' and pencil icons in the top left of the interface, respectively.

EPPI-Reviewer

Data extraction

- View PDFs within item records
- Highlight text and assign to codes
- Highlighted quotes appear in reports
- Produce reports with quotes for just one code

The screenshot displays the EPPI-Reviewer Beta interface. On the left, a sidebar lists various codes under the heading 'Family'. The 'Professional/personal development' code is selected and highlighted in blue. The main area shows the 'Item Details' for a document titled 'Prioritizing equity for special education students, students without access and English learners'. The text of the document is visible, with a portion highlighted in yellow. The interface includes navigation buttons (First, Previous, Next, Last), a search bar, and a 'Currently selected code' field.

Interactive evidence gap maps

- Created for each research question
- Freely available open access
- Filterable, searchable
- Can download references
- Direct links to studies
- Can assist synthesis

What are the characteristics of, m learning in COVID-19
An interactive evidence gap map by Dr Melissa Bor

Study Characteristics

- Africa
- Asia
- Europe
- Oceania
- Middle East
- North America
- South America
- Teachers
- Students
- Parents
- School Leaders
- District administrat...
- Learning designers
- Government officials
- Kindergarten
- Primary/Elementar...
- Middle School
- High School
- Special needs
- Unclear
- Higher Education

Research focus and approach

- Research focus and ...
- Teacher digital co...
- School-home conn...
- Digital infrastructure
- Administrative resp...

Emergency Online Teaching in Economic and Management Sciences Necessitated by the COVID-19 Pandemic: The Need for Healthy Relations in a Rural Schooling Context

"To prevent the spread of the COVID-19 virus, the pandemic has necessitated new ways of teaching that favour online learning. Emergency online teaching (EOT) was adopted to address various challenges, such as a lack of competence in teachers for teaching online using digital learning management systems, shortcomings regarding internet connectivity, and resistance by teachers to using EOT. Relational leadership couched the study, with an emphasis on constructing positive relationships to forge sustainable learning conditions. A Whatsapp group was created to facilitate focus group discussions. The study found that EOT and learning is desirable and doable, even though various challenges need to be overcome, especially in rural schools. Therefore, there is a need for teachers to adjust their subject teaching plans, assessment details and teaching materials, and to adopt new ways of interacting with learners through EOT during the COVID-19 pandemic. The argument of the paper is that, in the context of COVID-19, education stakeholders should invest in healthy relationships to facilitate the adoption of EOT, in order to construct conducive learning conditions in rural contexts."

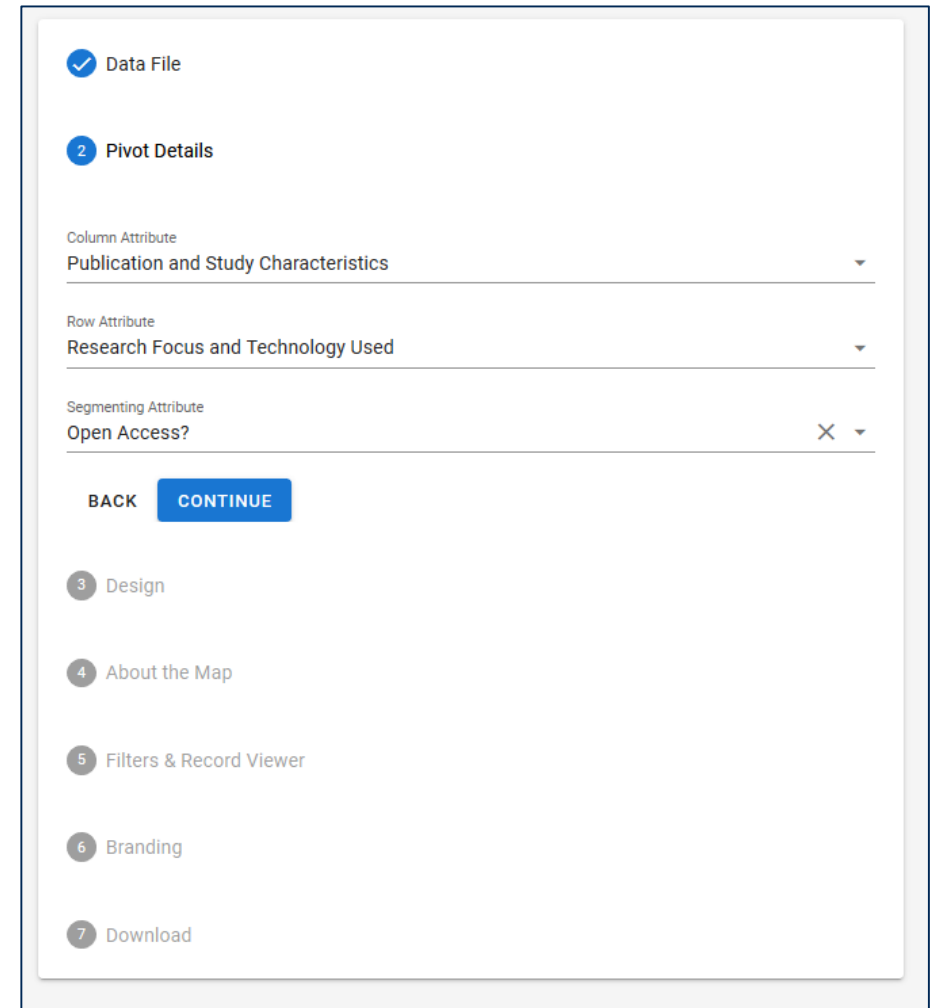
<https://doi.org/10.26803/ijlter.19.6.23>

Authors: Molise H ; Dube B ;

EPPI-Mapper application

<http://eppimapper.digitalsolutionfoundry.co.za/>

- Free for all users
- Uses EPPI-Reviewer data (JSON report)
- Simple, easy to use wizard
- Add further links, graphics and videos
- Include information for how others can submit to your review
- Download and share



Living review

Using Microsoft Academic Graph within EPPI-Reviewer

- MAG still in beta in ER Web, but available in ER4.
- Allows easy citation checking.
- Import items directly into your review.
- Create auto-updates for included items in your review.

The screenshot shows the EPPI-Reviewer interface for the Microsoft Academic Browser. The top navigation bar includes the EPPI REVIEWER Beta logo, the title "Microsoft Academic Browser", and user information "Melissa Bond" with "Feedback", "Help", and "Logout" links. Below the navigation bar are buttons for "Home", "MAG Simulations", "Show History", "Matching MAG Items", "MAG Admin", "MAG Search", and "Selected". A "Close/back" button is also present.

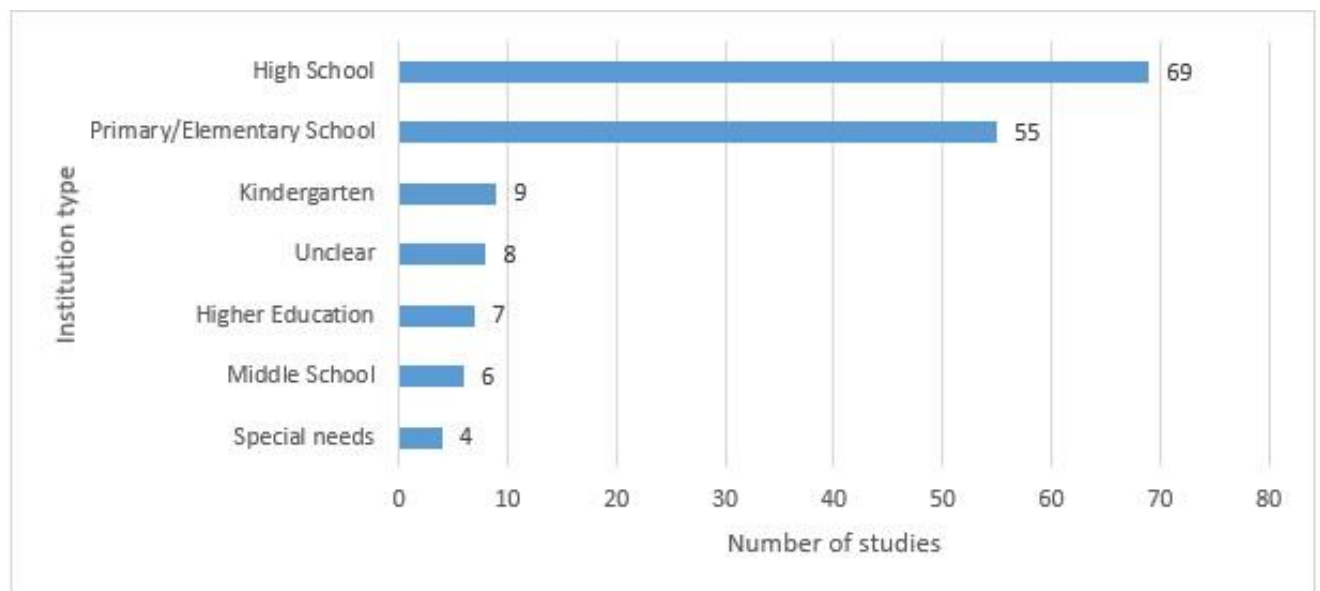
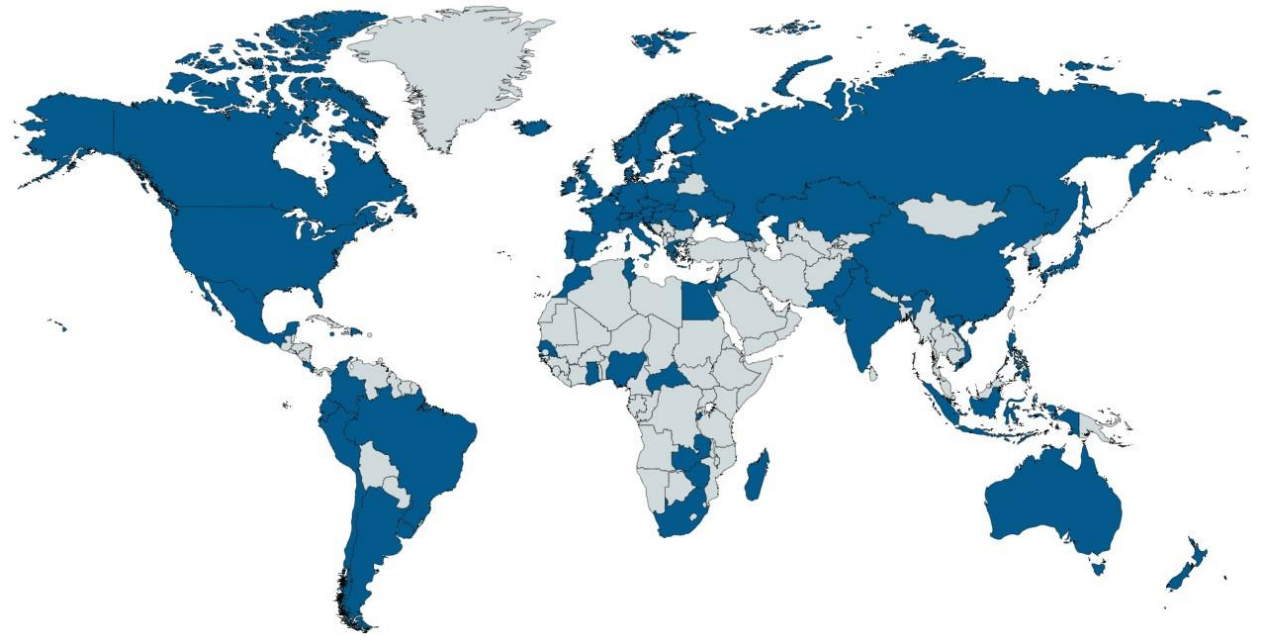
The main content area features the instruction "Find related papers and set up review auto-updates" with a "more details" dropdown. A "Create new MAG search/auto-update" button is located below this instruction.

The "Searches" section contains a table with the following data:

Re-run	Status	Description	Mode	Date from	Date run	All included	With this code	Filtered
false	Complete	2751 Bidirectional	Bi-Citation AND Recommendations	10/1/2020	11/13/2020	<input checked="" type="checkbox"/>		NoFilter
true	Complete	1294 Citing papers	Cited by	4/1/2020	12/3/2020	<input checked="" type="checkbox"/>		None
false	Pending	0 New items published	(Next MAG) - new published items	1/1/2020		<input checked="" type="checkbox"/>		NoFilter

Review results

- 88% of studies are available open access.
- Most research participants were from Europe (44%), Asia (27%) and North America (22%).
- The majority of studies were focused on experiences at secondary school level (78%), and focused on teachers and school leaders (71%).



Identified research gaps

- Lack of research from Africa, Oceania, the Middle East and South America.



Identified research gaps

- Lack of research from Africa, Oceania, the Middle East and South America.
- More research needed on the experiences and preferences of students, especially in regards to vulnerable populations.

	Participant Continent	Participant Focus						
		Teachers	Students	Parents	School Leaders	District administrators	Learning designers	Government officials
Teacher digital competence								
School-home connection								
Digital infrastructure								
Administrative response								
Technology choice								
General challenges								

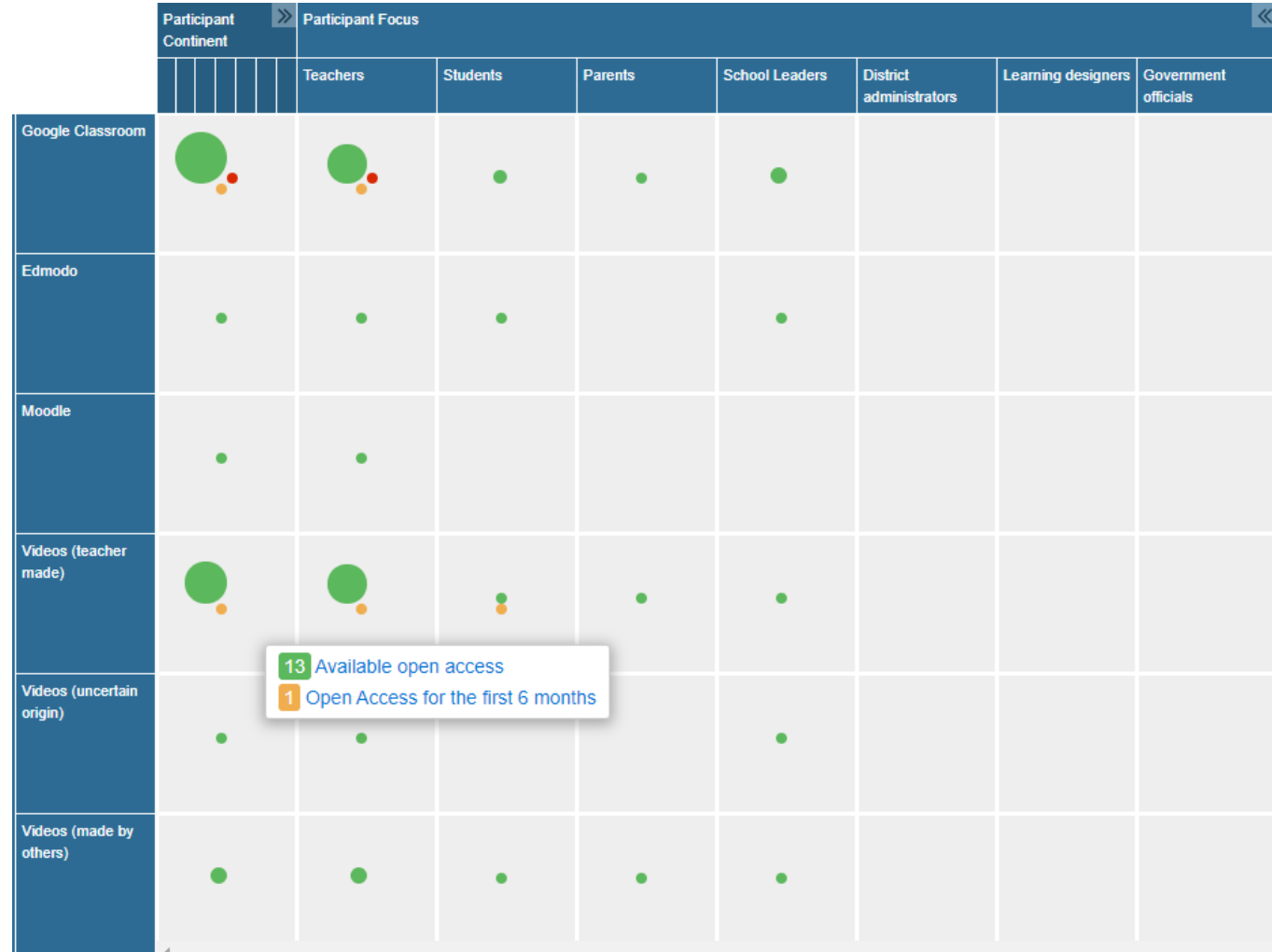
Identified research gaps

- Lack of research from Africa, Oceania, the Middle East and South America.
- Experiences and preferences of students, especially in regards to vulnerable populations.
- Multimodal production tools, social networking tools and assessment tools.

	Participant Focus							
	Participant Continent	Teachers	Students	Parents	School Leaders	District administrators	Learning designers	Government officials
Synchronous collaboration tools								
Multimodal production tools								
Knowledge organisation & sharing								
Text-based tools								
Social networking tools								
Assessment tools								

Identified research gaps

- Lack of research from Africa, Oceania, the Middle East and South America.
- Experiences and preferences of students, especially in regards to vulnerable populations.
- Multimodal production tools, social networking tools and assessment tools.
- Google Classroom, Edmodo, Moodle and videos.



Conclusion

Fast

- 1 month to conduct search and data extraction, part-time
- Used previous reviews to construct search string
- Direct import from MAG into EPPI-Reviewer

Good

- Large number of sources considered, including grey literature
- Interactive EGMs allow open exploration of data
- Updatable 'living' review

Cheap

- 1 person
- EPPI-Reviewer cost nominal – everyone entitled to one month free trial
- EPPI-Mapper free to ER users

Further information

- [Schools and emergency remote education during the COVID-19 pandemic](#) – information and interactive evidence gap maps.
- [Schools and ERE during the COVID-19 pandemic](#) – article.
- [Schools and ERE living review](#) – open access database using EPPI-Visualiser
- [EPPI-Reviewer homepage](#) – sign up to a free one month trial.
- [EPPI-Mapper information](#) – includes links to example maps.
- [EPPI-Mapper app](#)
- [EPPI-Reviewer instructional video](#) on interactive evidence gap maps.
- [EPPI-Reviewer instructional video](#) on how to create an EGM using EPPI-Mapper.
- Information about [using Microsoft Academic Graph](#) within EPPI-Reviewer.

- [Mapping the field of emergency remote teaching in higher education due to COVID-19](#)

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LinkedIn: <https://www.linkedin.com/in/bondmelissa/>

YouTube: <https://www.youtube.com/user/EPPIReviewer4>

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