Seeking Quality in EdTech Solutions: Perspectives from Across the Ecosystem

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Abstract: The demand as well as the supply of educational technology products has been growing rapidly. Across the world, there has been a surge both in quantity and variety of solutions in terms of the products' intended goals, target audience, pedagogical design, technology, cost, use case and so on. In this landscape, selecting solutions appropriate for one's context and evaluating their quality is challenging. Stakeholders across the EdTech ecosystem have expressed a need for quality standards for EdTech solutions. This panel examines the perspectives of different stakeholders and discusses various multi-stakeholder initiatives aimed at defining and implementing quality standards. The panel brings together researchers, members of NGOs and foundations to build shared understanding of EdTech quality.

Keywords: EdTech, standards, quality framework

1. Introduction

Educational Technology (EdTech) ecosystems are growing rapidly. Especially since Covid-19, it has become an area of increased focus. As the diversity and quantity of solutions in any market increase, it becomes increasingly difficult for adopters to make selection decisions. At the same time, EdTech product companies find it difficult to differentiate themselves and to design for different quality parameters, leading to solutions which may not meet the needs of learners or teachers. Overall, there is a lack of understanding and agreement of what is meant by *quality* of EdTech, and how it connects to student learning. In developed countries, there's a range of solutions that have emerged to deal with this type of information asymmetry (for example, EdReports (2021)). However, in developing economies, there are some peculiar challenges, that increase complexity such as due to inadequate quality standards that take into account the needs arising from the local EdTech ecosystem, and a lack of unbiased reliable product evaluations. Innovative models of working across domains and disciplines are needed to create solutions to address such challenges.

Another set of challenges arise due to the multiple stakeholders such as schools, teachers, parents, governments, philanthropists and investors, each bringing their own needs and requirements. Without quality standards, decision making about EdTech solutions can become adhoc in nature. Thus solutions need to be designed so that various stakeholders are actively engaged. A collaborative, systemic effort to design and implement quality standards contribute towards creating a healthy system of EdTech supply and demand (Omidyar Network, 2019). Within this scenario in recent years, the need for quality standards and a framework for evaluating EdTech products has been frequently stated.

This panel explores the perspectives of different stakeholders in the EdTech ecosystem to seek a deeper understanding of quality of EdTech solutions and how to achieve it. What are research recommendations for the design and implementation of EdTech solutions? What are the theoretical underpinnings? What are the existing available frameworks, and can they be adapted across different contexts? How to create solutions that foster a convergence between various stakeholders? What are instances of such solutions? This panel aims to bring together researchers and practitioners who represent different facets of the EdTech ecosystem.

2. Abstracts of Individual Panelists' Presentation

2.1 EdTech Quality: The Role of Philanthropic Foundations, Asyia KAZMI

Foundational literacy and numeracy learning outcomes are dire in low and middle income countries. EdTech can play a key role in improving such outcomes. For this, mechanisms of supply shaping are required as well as evidence generation for comparison of solutions in specific contexts. Such mechanisms are required for policy makers and people making decisions. This presentation will discuss the perspective of a philanthropic foundation involved in such efforts: the concerns and issues within the larger EdTech ecosystem.

2.2 EdTech Tulna (Part 1): Research Perspective, Chandan DASGUPTA

EdTech Tulna (Tulna 2021; Patel et al 2021) is an initiative born out of India that focuses on solving a systemic issue of information asymmetry in the Indian EdTech ecosystem and aims to introduce quality standards for EdTech. EdTech Tulna consists of a research-based framework to set quality standards and a corresponding product evaluation index. The framework also takes into account recommendations from national educational policies (NEP 2020). This presentation will discuss the theoretical and empirical bases underlying the framework (Nokelainen, 2006; Nesbit et al., 2007), and how the constructs and criteria have been operationalized in the evaluation index for different categories of EdTech products. A longer discussion of these issues is presented in a full paper at ICCE 2021 (Patel et al 2021).

2.3 EdTech Tulna (Part 2): Implementation Perspective, Rashi DHANANI

EdTech Tulna is created out of a partnership in India between an academic institute and a non-governmental organization focusing on educational policy and strategy. Focusing on driving demand-led adoption of these standards, EdTech Tulna also hopes to increase the overall quality of EdTech solutions in the ecosystem. This presentation will focus on some of the implementation aspects of the EdTech Tulna framework: what is the nature of engagement with product companies, and how the initiative provided strategic and technical support to governments for procurement decisions.

2.4 Evidence Based Decision-Making for Edtech in Sub-Saharan Africa, Tom KAYE

This presentation will focus on how the EdTech Hub works with governments to support evidence uptake with regard to EdTech deployment. A summary of interesting findings from EdTech Hub's work across Africa will be provided, touching upon research, technical assistance and sandboxes. A deep dive into one of the projects will illustrate how the systematic experimentation approach.

3. Discussion and Conclusion

Seeking quality in the design and implementation of EdTech solutions has been increasingly seen as an important goal. This panel aims to bring together voices from various initiatives towards this goal. The perspectives of researchers, academicians, foundations and funders, and members from non-governmental organizations in this panel all contribute to the systematic effort needed to define quality standards for EdTech solutions and use them in practice. The panel hopes to build a better and common understanding of these issues.

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