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USING PRIZES AND PULL MECHANISMS TO BOOST LEARNING

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This is the twelfth paper in a series of interactive papers that provides specific guidance regarding the adoption of Common Core State Standards and the shift to personal digital learning.

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EXECUTIVE SUMMARY

We are only just beginning to realize the potential for prizes to mobilize global expertise and accelerate innovation in education. This paper, adapted from a March 2014 response to a White House Request For Information (RFI), outlines ways that pull mechanisms could be used to encourage investment and innovation in categories not receiving sufficient attention—with the ultimate goal of accelerating the development of high-impact learning technologies.

In healthy markets, participants respond to incentives, invest in research and development (R&D) and produce new innovations. Capital investments bring productivity to scale. In underdeveloped or inefficient markets, customers have few choices, often controlled by bureaucratic mechanisms rather than market mechanisms, and there is little investment in R&D. Underdeveloped markets suffering from a lack of investment and innovation can be addressed through direct investment (return-seeking or philanthropic) by advocating for better policies, or through pull mechanisms.

Direct investments, like foundation grants, can carefully target a specific outcome for a specific audience. They are often crafted by a few wise elders and paid up front without the benefit of any leverage. In contrast to traditional (push) strategies, pull mechanisms have the potential to leverage the expertise and resources of a community; they may also be constructed in such a way that the majority of investment can be based on success.

The four typical pull mechanisms include:

- **Market development:** aggregated demand and advance market commitments;
- **Fast track policies:** cutting through the bureaucracy with accelerated approvals and proactive incentives;
- **Inducement prizes:** rewards for successfully meeting a breakthrough challenge or outcome; and
- **Leveling the playing field:** creating a level regulatory space that invites non-traditional players to participate and offer solutions.[1]

Market development. The most common pull mechanism is the broad category of efforts to improve market efficiency by organizing buyers or addressing blockages. By aggregating demand, market facilitators seek better access to inexpensive supply. In global health, advance market commitments (AMCs) guarantee purchase commitments for drugs over a period of time. The increased certainty enables drug manufacturers to make investments to deliver drugs or even develop new ones. In a recent paper, Smart Series Guide to EdTech Procurement, the authors described how aggregated purchasing is saving time and money for school districts.

Prizes. Inducement (or incentive) prizes are routinely used to promote private and public benefit. While awards recognize prior achievement, prizes induce future actions. Grants sponsor identified work by a named beneficiary, while prizes have the potential to mobilize an army of experts to work on a problem—and they only get paid if they achieve the goal.

Prizes can also be effective mechanisms to cultivate innovations by creating the financial incentives needed to attract a broad array of competing innovators. They also can be more efficient in the sense that prize funding is only awarded when certain criteria are met. So the funders pay only for the output, not the inputs with the hope of a breakthrough.

There are no "silver bullets" in education, but targeted incentives for innovation, like last year's Hewlett-sponsored essay scoring competitions can mobilize talent and resources to improve access and quality. Prizes could be used to boost literacy, middle grade math achievement, and language acquisition. Prizes could similarly be used to analyze big data sets and produce useful algorithms.

While not an exhaustive list, there are four types of prizes that could prove to be useful in education.

- **Design Prizes:** small prizes could be used to incentivize innovative designs for new schools, new school facilities, or new systems of education.
- **Intervention Challenges:** products, services, and strategies could be tested in comparable short cycle trials.
- **Data Competitions:** inviting data scientists globally to work on well-defined problems.
- **Geo-Competitions:** inviting districts, cities or regions to compete on specific challenges over a specific period of time or to achieve a certain outcome.

A successful prize draws attention to a problem or opportunity, mobilizes significant resources and solves the problem—or at least illustrates the path forward.

This paper explores the following questions related to the potential of prizes and pull mechanisms to boost learning:

- What learning outcomes would be good candidates for the focus of a pull mechanism to catalyze the creation and use of new learning technology? How are these learning outcomes currently measured and assessed?
- What changes in public policy would facilitate experimentation with pull mechanisms at different levels of government?
- What role might different stakeholders (*e.g.*, federal agencies, state and local educational agencies, foundations, researchers, practitioners, companies, investors or non-profit organizations) play in designing, funding and implementing a pull mechanism for learning technology? What role would your organization be willing to play?