Merrilea Mayo’s article performs an important function by providing a realistic snapshot of the current state of the learning games field. She gets many things right, including:

People are interested in content related to learning—demand is visible in sales of DS games.

Games don’t have to be AAA to be successful.

Existing developers labor under the problematic models for the successful distribution of learning games.

Most products generated by researchers require more hardening, more realistic business plans.

Learning games publishers business models should presume longer shelf life, more gradual repayment of investment.

Models for distribution to K-12 schools differ greatly from those for individuals or higher education.

Where the article suffers is in not going far enough into particulars. She paints a picture of industry-wide averages. This could make sense for a mature industry, but with the relatively small number of current learning games and/or developers, this may not yield valid results. The industry is still sufficiently new that the conversation might benefit from looking at specific examples, and evaluating which instances are more promising, which are dead ends.

In an otherwise strong opening section, while she accurately upends several assumptions about the state of the field, she points out that there are a wide variety of learning games already on the market, but in fact her list includes a few games that are outstanding, and many more that are not. The failure of these games is not along the axes she alludes to in this section (i.e. production values) but rather whether they are truly engaging, and whether they represent high-quality pedagogy. It is true that such evaluation of individual products is not in her remit, but as we try to examine a small and growing industry it is challenging to do so without having greater clarity as to what makes a good game, and whether the conditions of manufacturing and distribution don’t in fact play a large role in determining that quality.

For example: early on she suggests that modern learning games are an improvement over the drill and practice of the 80’s, but in fact this glosses over a period in the early-mid 90s, when there was an explosion of interesting, pedagogically adventuresome games. This era came to the end with the rise of distribution through big-box stores, and the concomitant pressure to spend
development dollars on licensing characters with market appeal (e.g. Disney, Rugrats) rather than commit to the rigorous R&D that had produced the brief flowering of worthwhile games. My point is not to dwell on that history, but to say that the means of distribution has an effect on the quality of the games, and when we talk of future development or distribution models, we can't do so without regard to the types of games that such models will favor.

It is worthwhile here to step back and make an analogy between games and films. At one time the Hollywood studios produced the whole gamut of movies, from big-budget spectaculars, to B-movies, to thoughtful small films with niche audiences. Over time, the economics of film distribution have driven the studios toward making mostly big budget films that recycle familiar franchises and storylines. The marketing of these films is expensive. The goal is to make the opening weekend an “event” on thousands of screens nationwide, enabling the studio to break even quickly, regardless of the films’ actual quality. The strategy is high-risk, high reward. Each film represents a big investment, and though many will fail, the successes are profitable enough to make up for the failures.

As Hollywood has abandoned small thoughtful films, their production has been taken up by independent producers who don’t expect to recap their investment so quickly, but rather hope for word-of-mouth to fuel prolonged distribution on a smaller number of screens. Compared to the studios’ output, these films are (relatively) low risk, and yield smaller rewards in the aggregate, but they contribute greatly to the variety and quality of films in the marketplace.

Nowadays, games are subject to similar economies. The best-publicized AAA games tend to be glossy retreads of familiar franchises. Upon release, such games have several weeks to recoup their investment in retail outlets, or find themselves consigned to the remainders bin, and accordingly they require marketing budgets equal to their development costs.

As with films, in response to these market conditions there is now a burgeoning independent games movement with different aesthetics and different economics. One critical difference is that while big-budget games are still sold in shrink-wrap through retail outlets, independent games tend to be distributed on-line, an environment much more conducive to targeted marketing and niche sales. These games are significantly smaller than traditional big-budget games. A game can be produced by a handful of dedicated designers, programmers, and artists in a fraction of the time. If the rewards are low to individual producers, the risks are even lower, and the rewards to the larger games field have been enormous. Independent games are proliferating from a staggering array of sources including industry professionals working in their spare time, dedicated amateurs pursuing their passion, and students experimenting as part of their course of study.
I take the trouble to paint this picture because it suggests something about the
difference between centralized development by a narrow group of industry
leaders, and more widely distributed production from myriad small developers
pursuing individual goals. This is a distinction unmade in Mayo’s article.
Indeed, a number of her proposals seem to presume the more centralized, big-
budget development models. To date, government agencies and foundations
have tended to place large bets on a small number of universities and R&D firms,
who in turn make big games. I have benefitted from some of these funding
opportunities, and a handful of such projects have been worthwhile, but overall
it has proved to be a high-risk, low reward strategy. While Mayo’s suggestions
for more rigorous review of business plans by funding agencies, and the creation
of expert panels that could set industry standards and rate games for
pedagogical values would no doubt improve upon the current state of affairs,
they would tend to do so in the same top-down way that most current game
funding decisions are made.

All of which brings me to the primary substance of my critique: rather than bet
on a small number of experts to get it “right,” why not bet on a future rich with
creative experimentation. Instead of betting on large individual learning-games,
why not bet on creating market conditions that would support many such small
independent games. Mayo’s discussion skirts rather casually over several
commercial and technological developments that make such a model possible:

1. Though web-based distribution does not solve all problems, it does
remove the very retail pressures that have caused game publishers to
behave more and more like Hollywood studios.

2. Web delivery makes possible free-downloadable demos, or incremental
purchases (e.g. the user spends relatively little to try part 1, and if pleased
pays more to purchase part 2, or the entire product). Such a commercial
model favors the independent developer who can’t spend huge sums on
advertising to create demand for a product.

3. Web-served Flash games represent a technology that makes it easy to
serve games to all variety of schools without encountering the challenges
of installing games on older machines, or in locked-down computer labs.
Indeed, such games can be accessible to students working on any web-
enabled computer in schools, homes, libraries, and after-school activities.
This in turn leads to a just-in-time approach to game play.

4. Flash is an increasingly sophisticated programming language capable of
far more involved games than the flat, simple 2-D products Mayo
mentions

Web-based Flash games may not represent the only possible approach to
creating a widespread independent learning game movement, but it is a model
that is already proven to work for independent “entertainment” games. The
benefits of such a marketplace would be several-fold:

1. It would be a laboratory for diverse approaches, and a chance for best
practices to emerge, rather than be pre-ordained by “experts.”
2. The products will tend to be smaller. Individual games will be more
adaptable for teachers working with different curricula and learning
goals.
3. More supple development models will allow game creators to refine their
products in response to feedback.
4. Individual products will require less up-front commitment for teacher
adoption. Teachers can take baby-steps toward using games, rather than
commit to radically changing their practice all at once.
5. In keeping with item 4 above, professional development materials will be
less costly to produce, and less daunting to consume.

While such a model may seem to be little more than the wishful thinking of a
long-time game designer, I can point to two models that hint at the possibilities
for the future of learning games.

I. The iPhone applet store is an environment that has inspired the very
flowering of independent development we hope to see with learning
games. It doesn’t single-handedly solve all the problems of distribution,
as most products without marketing muscle have a hard time gaining
traction, but it does show the range of creative ideas waiting to come out
of the woodwork when game creators have an easy development
platform, and a low-barrier to entering the marketplace. Indeed, while I
still think Flash is the preferred development mode for the near future,
there’s no saying that the future for learning games won’t involve some
convergence of what is possible on computers and on smart phones.

II. Brainpop is a privately-held company that has created a site rich with
well-made, informative and entertaining videos on a wide range of school
topics. A typical video might be 10 minutes long, and treat a single
subject such as penguins, the Emancipation Proclamation, or isosceles
triangles. Everything is well indexed by grade and subject area, and as
such it is extremely easy for a teacher to quickly find something to insert
in her lesson plan with minimal effort. The quality is uniformly high, and
the ease of use has lead to wide-spread adoption by schools or districts
who pay annual licensing fees. The videos are equally popular with
teachers, students and parents. They don’t presume to “teach” the whole
curriculum, but they’re valued in many schools without imposing
enormous costs on the school budget, or the technical infrastructure.
There is no reason that similarly accessible learning games might not
serve a comparable niche, encouraging students to solve problems and
interact with new material, not just absorb it as viewers.

What the above suggests is that parties interested in this conversation,
government agencies, foundations, universities and not-for-profits, might find it
useful to put more of their efforts into helping create the market conditions that
would enable such developments in the learning games space. These efforts
could include:

1. Funding platforms that would function like the iPhone Applet store for
   learning games. Such platforms would not only house games, but teacher
   materials as well. They would also host social networks of teachers
   sharing their practices with each other.

2. Develop micro-funding schemes that would provide incentives for small-
   scale independent developers to undertake learning games, while not
   committing large amounts to any one game or initiative.

3. Help independent developers connect with learning specialists to facilitate
   the creation of good teacher materials keyed to games.

4. Providing funds to help market promising games that have been
   developed independently.

5. Continue to support research that demonstrates the effectiveness of game
   based learning, and helps define emerging best practices.

This is an approach that favors experimentation and innovation. As such, it is
much more in alignment with the diverse, bottom-up way that change has come
to interactive media since the rise of the web.