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Commentary on Interest-Driven Creator theory: a US perspective on fostering interest, creativity, and habit in school

Jeremy Roschelle* and Quinn Burke

* Correspondence: jroschelle@digitalpromise.org
Digital Promise Global, 2955 Campus Drive, San Mateo, CA 94403, USA

Abstract

In this commentary on Interest-Driven Creator (IDC) theory, the authors reflect on the proposed three-step cycles of (i) sparking students' interest, (ii) fostering individual creativity, and (iii) inculcating lifelong learning habits. Each component of IDC theory pulls together a wide span of prior research and emphasizes active roles for students. Although the context of IDC as a prototype for educational reform is K-12 Asian classrooms, we note that some US schools are also mired in a focus on test scores. This is especially true among the US most struggling, low-income schools, where a lack of electives and afterschool programs correspond to diminished student perceptions about their own autonomy as learners and their future creative potential. Thus, while IDC is an important provocation for curricular reform in Asia, there is also the need to broaden its scope and begin to explore the potential of IDC as a leadership tool beyond Asia. The wider learning sciences community, the commentary concludes, is uniquely suited to support such an extension, and there are many opportunities for productive international collaboration.

Keywords: Interest, Creativity, Equity, Design

Introduction

In *Democracy and Education*, Dewey (1916) conceptualized education in a context of change. A century ago, immigrants were about 15% of the population of the USA, and educating newcomers was considered to be an important societal challenge. Dewey looked beyond basic conceptions of literacy to imagine what a healthy twentieth century democracy would require. His answer was to recognize the importance of developing a rich sense of inquiry among all learners. Today, immigrants are about 13% of the population of the USA. New educational challenges are on our minds—challenges that go beyond basic literacy and address changes in the nature of work (Sweet & Meiksins, 2015). Although Dewey's perspective is still relevant, the twenty-first century is requiring more and different skills than the twentieth century—a healthy society will require a broader base of citizens who are perpetually self-motivated, creative, and committed to lifelong learning. This is a bold and pressing challenge. It is a challenge fundamentally rooted not only in transferable skills but also in communal values.

In Interest-Driven Creator (IDC) theory, Tak Wai Chan and his distinguished colleagues (Chan et al., 2018) propose a bold philosophy and approach to address this

challenge in Asia. Three primary ideas anchor their re-thinking of learning activities: *interest*, *creativity*, and *habit*. Their articulation of these ideas pulls together ideas from many literatures in integrative ways that are rare in scholarly work and yet entirely practical. Indeed, the example of Modelled Sustained Silent Reading shows how impact can be achieved at meaningful scale (Gardiner, 2005). Further, one strength of IDC is that it focuses on the agency of students. In contrast to some views of "personalized" learning which are about customizing the assignment of tasks to students, IDC is about each student becoming a well-rounded person—a person who has agency in pursuing their own learning. Overall, IDC appears to be a liberal education philosophy, as it aims to help the individual to pursue learning and engagement grounded in their own unique individuality to prepare broadly to be a citizen of a cosmopolitan world (Bereiter, 2002; Kimball, 1986).

With regard to interest, we find it notable that the IDC authors highlight not just "having interests" but more important "doing interests." Their cycle of interest features action words—*triggering*, *immersing*, and *extending*—that require educators not to merely cater to existing student interests as static topics, but rather as launching points for student-centered learning that leads to deeper immersion in their interests. This is, of course, challenging. A curriculum that aligns with a likely topic of student interest, say a sport or a craft, may very well "trigger" student interest, but a fixed, pre-planned curriculum is unlikely sufficient to sustain immersion and optimal engagement or "flow." (Nakamura & Csikszentmihalyi, 2014) This will be challenging for teachers, who must in the words of Dewey:

> Abandon the notion of subject-matter as something fixed and ready-made in itself, outside the child's experience; cease thinking of the child's experience as also something hard and fast; see it as something fluent, embryonic, vital; and realize that the child and the curriculum are simply two limits which define a single process. Just as two points define a straight line, so the present standpoint of the child and the facts and truths of studies define instruction. It is continuous reconstruction, moving from the child's present experience out into that represented by the organized bodies of truth that we call studies. (Dewey, 1964, p. 344)

Abandoning the notions of fixed subject matter or of a child's interests as stable is not easy for teachers, who must reconsider their profession through the lens of child development rather than that of disciplinary authority or of guiding progress through a scope and sequence. Yet having educational opportunities for extending personal interest into a wider culture of inquiry is—to again echo Dewey—critical to a healthy citizenship that can tackle tough societal problems. Inquiry is a value, not just a set of skills. Thus, the reconciliation that Dewey foresees is not simply one of matching a fixed set of interests to a static list of skills. Instead, Dewey foresees an educational process that values what youth bring to the table—energy, fluidity, new ideas—and seek to cultivate each child's potential in light of broad societal values.

With regard to creativity, the authors articulate a sense of the fundamental "doing" that goes far beyond facile add-ons to an existing curriculum. IDC is not interested in softening prescribed assignments with tacked-on arts and crafts flourishes. IDC is not an attempt to "personalize" a curriculum that is actually fundamentally standardized.

Rather, their view of creativity has much in common with today's dynamic "remix" processes, that has, for one, re-shaped American art and music over the past half-decade and has expanding influence in computing education (Dougherty, 2013; Kafai, 2016). Creativity, the authors aptly point out, starts with imitation. This can involve a youngster expertly lip-synching the latest pop song or a teenager studiously trying to replicate the layout and design of a popular website for their own personal social media page. Remixing can involve youth combining and re-purposing elements of popular culture which they reference through imitation. Imitation is often dismissed as the antithesis of creation, when in fact the affection and industry that spur it are the same ones that hatch creativity. From these dedicated imitations, the learner develops his or her own samples which then can be stacked, mingled, and molded to form new and unique combinations, to be staged and shared publicly, leading to new impressions and imitations, and the development of a truly virtuous cycle.

Next, we come to the most intriguing loop, that of "habit." As with the other loops, what is bold about this loop is its clear call for a "doing" not just an "appreciation" orientation. Too often, interest and creativity have their end point only in a sense of enjoyment or appreciation. But enjoyment can be short-lived, requiring a ready stream of new stimuli for the next rush of excitement and taste of novelty. An appreciation can be of someone else's creative effort, not a strengthening of one's own drive to pursue interests, create value, and make a difference in society.

In contrast, the IDC authors imagine a future population where children develop the internal processes to sustain effort and engagement as the habits of a lifelong innovator—people who do not merely consume technology, but also create it (Yadav, Hong, & Stephenson, 2016). Here "harmony" is a particularly intriguing component of the loop. The "interest" and "creation" loops may very well promote the image of the student as growing to be an artist or provocateur. And yet it is hard to imagine a thriving future society where everyone is disrupting or provoking everyone else. Yes, we need dynamism and innovation in a future society, but we also need harmony. This is perhaps the boldest and most challenging concept in the IDC approach (at least to our American ears, where the conception of "harmony" is too often dismissed as an internal state of mind rather than an actionable external collective reality). What kind of habits prepares students for a harmonious life and to build a harmonious society, but yet do not lead to a society that is inert, docile, or conformist?

IDC beyond Asia

The paper is clear that the intended context for IDC is Asia, and yet we naturally wonder if IDC could prove important in other regions. In the USA, the context is superficially somewhat different. For many American parents and children, informal learning activities are a major focus of childhood. Affluent parents send their students to afterschool programs, summer camps, community centers, church youth groups, and libraries. Each of these settings offers ways for students to regularly pursue music, drama, and the arts. Many communities thus have multiple niches for children to work on and engage with their interests, and these interests are a factor that *counts*, for example, in offers of admission to selective American universities. Indeed, a standard requirement for admission to a selective American university is a personal essay about an interest that the young applicant has actively pursued. And it is worthwhile to note that while

an increasing number of competitive US colleges—including top-tier programs such as the University of Chicago—have ceased requiring standardized test scores for undergraduate admission, the personal essay is still a hallmark admission requirement.

An interesting example of interests that American youth pursue is the prevalence of jazz bands in American high schools. The fact that jazz bands still exist is somewhat odd because the swing and big band culture they reproduce disappeared 75 years ago. Almost no one goes to dance to a 20-piece jazz band these days, not to mention the fact that few bands would even assemble in such size, given the wider logistical and economic considerations. The current incarnation of such large jazz bands finds its listening audience confined to parents and family members watching the young players perform at a school concert. So, jazz band cannot claim any sort of direct relevance to students; clearly, students do not participate in the activity because they anticipate a future career as an artist in the big bands and swing music halls that disappeared about 75 years ago.

So why are students still interested in a jazz band? We think that jazz bands persist as a school and after-school activity because they offer students something quite different from playing in a school orchestra—opportunities to master complex technical skills such the art of improvisation in a participatory, group context. Jazz is the sound of freedom; it is an opportunity to explore personal expression in social context. As Herbie Hancock, a famous jazz musician, said:

> You know, the most important thing is the spirit of jazz — which is about freedom, about improvisation, about courage. I mean the courage to play something that you haven't played before, to create something on the spot. And it's also about sharing, because onstage we don't compete with each other. Each of us expresses ourselves from our own being, and no two people are alike, so the idea of being judgmental is not on the table.
>
> Herbie Hancock, quoted in the Russonello (2019)

In our own experience of school jazz bands, both as students and as parents of children, the reason students get hooked on jazz band and continue with it for 5 or more years has almost nothing to do with academic goals nor parental pressure. Rather, playing jazz in a group with fellow students is an intense, accessible form of the very three loops highlighted in the IDC framework—the loops of interest, creativity, and habit (and quite literally, harmony). We suggest that IDC, like jazz, should aim for the kind of harmony that celebrates the courage it takes to share individuality. This is not an inert harmony achieved by reducing freedom of expression and eliminating the risk of trying new things. For young students, the freedom to explore personal expression in a supportive social context is very powerfully engaging; the harmony of courage and freedom is empowering. For a student-interview-based account of this, see Gouzouasis, Henrey, and Belliveau (2008). It could very well be that jazz bands persist not as a strange anachronism but because when given the right opportunities for the IDC loops, powerful motivations of self-actualization, belonging, expression, and innovation are realized. And thus, it does not matter if the overt art form has a limited audience or whether it aligns with a future career trajectory: the participatory opportunity for harmonious self-expression has a powerful positive effect anyway.

This brings us to the fit of IDC to our own context. Yes, American culture has strong traditions of developing our youth in interest-driven, creative activities of many types. Afterschool sports alone offers a tremendous range of examples. But opportunities to partake in these traditions is not evenly distributed (Dawson, 2014). High-income schools and communities offer their youth an amazing array of activities that would fit IDC already. Low-income communities, which in America are also often communities that have been oppressed by racism and other structural inequities, often have the schools that focus the most on testing. Although these schools do not look or perform much like Asian schools, the unrelenting focus on preparing for and taking tests can be sadly similar. Further, these schools have the fewest resources to sustain interest-driven activities, with the majority of time, energy, and money going towards test prep around mathematics, language arts, and a few other key subject areas.

How does this change? Namely, how do such schools find levers by which to not only increasingly incorporate interest-driven activities in classrooms but also ensure these activities *count* on the US educational landscape? Certainly project-based learning, transferrable student-portfolios, and an increasing focus on secondary-school internships on the secondary level all represent steps in the right direction. A more recent initiative entitled Portrait of a Graduate (https://portraitofagraduate.org) represents important next steps for school districts themselves (and not state departments of education) to take ownership of articulating the crucial skills and values that define a graduate of their schools. To develop a Portrait of a Graduate, a school district must do more than citing the necessary academic requirements. The Portrait of a Graduate activity asks districts to be intentional about explicitly identifying the critical thinking, communication, collaboration, and creativity that youth need to thrive in this complex, rapidly changing world. It asks "What kind of well-rounded individuals do we want our youth to be?" Developing a Portrait follows an implementation plan divided into four sections—plan, activate, create, and adopt. Each stage involves soliciting feedback and participation from teachers, students, families, and the wider community. Portrait of a Graduate represents a localized initiative to better define global learners (Rothman, 2018).

We also admire the subtle dialectic in IDC between a focus on creation and a focus on creativity. When we visit schools in our country, we notice that exciting, progressive schools often feature creations. You can see examples of students' novel, expressive artifacts everywhere—on classroom shelves, posted along the walls in school corridors, celebrated in display cases, and showcased in district offices. But we also notice that when we talk to teachers and school leaders, they are also articulate about the process of creativity—how they create space in school assignments for students to respond creatively and how they nurture creativity regularly, not just in the production of a particular showpiece. Our hypothesis is that both are important in schools. Celebrating the creations breathes energy into habit of creativity; cultivating creativity regularly leads to more authentic and meaningful creations.

IDC thus is highly relevant to educational discussions in the USA. Reading the paper, our thoughts immediately went to the seminal book *Hanging Out, Messing Around, & Geeking Out* by Ito et al. (2009), which focuses on digital and social media production among young learners. Like IDC, Ito's book follows a three-tier pathway, moving from youth's social sampling of a range of digital media applications, to then remixing and

repurposing a range of content, to sharing and commenting upon such content and fostering a wider culture of creative contribution. What becomes clear in the ethnography however is this "incline" from hanging out to messing around to geeking out is not so much a natural rise within all schools and communities. It can be much more difficult for low-income communities to offer the breadth of IDC-like opportunities, which is evident in the widespread lack of after-school and informal activities for children as well as the paucity—if any—of school day electives for students. Within these schools and communities, students do not stop socializing nor do they stop sampling different activities; but their "hanging out" and "messing around" often take on far less productive—and even detrimental—dimensions. Poorer communities struggle for meaningful educational opportunities.

Thus, we see IDC as offering a valuable provocation beyond Asia. No matter where we live, we can use IDC as a lens to ask about the scale, impact, and equity of the activities we offer to youth that develop interest, creativity, and habits of participation in a dynamic, progressive society.

Opportunities for international collaboration

The past decades have seen many very positive steps to international collaboration on the future of learning. Many of us participate together in international societies like the International Society of the Learning Sciences (ISLS), and related conferences such as the International Computing Education Research (ICER) conference have been held in Asia, Europe, Australia, and America. Also, many of our countries participate in the same international surveys, like TIMSS and PISA. *What would it look like to catalog the opportunities for IDC learning across our societies? What is happening at scale? Who is it impacting? How are we making progress on the equity challenges that IDC raises?*

One attractive feature of IDC is that it has been used as a curriculum design theory and there are examples of impact at scale resulting from those uses. But it may be worthwhile to develop *IDC as a leadership tool*, not just a curriculum design framework. In our roles at ANON, we work with the top leaders of over 100 school districts throughout the USA, serving over three million students. These districts are a member of ANON network, and all of these districts are committed to addressing challenges of equity within their districts. We wonder how the IDC lens could become a way of talking with powerful school leaders about what it means to prepare students for the future in an equitable way? Could it become a framework for structuring a learning sciences-based discourse about the kinds of learning that are most important to the future?

To further develop this point, we wonder to what extent IDC will expand to include other elements of a liberal education philosophy. One useful definition of liberal education is offered by the Association of American Colleges and Universities:

> Liberal Education is an approach to learning that empowers individuals and prepares them to deal with complexity, diversity, and change. It provides students with broad knowledge of the wider world (e.g. science, culture, and society) as well as in-depth study in a specific area of interest. A liberal education helps students develop a sense of social responsibility, as well as strong and transferable intellectual and practical skills such as communication, analytical and problem-solving skills, and a

> demonstrated ability to apply knowledge and skills in real-world settings. (Association of American Colleges and Universities, n.d.)

IDC appears to be a theory that has, at its root, the goal of empowering individuals. It intends to develop traits of a liberal individual—inculcating individual interests, fostering creativity, and articulating habits of engagement. To what extent is IDC also aimed at explicitly developing civic engagement on the issues of the day and nurturing values among the school leaders and wider policy makers guiding education? Is it a theory that prepares students for the future of work only, or also for the future of civic participation? Does focusing IDC in K-12 have implications for what university-level education in Asia or elsewhere might look like?

Moving from theory to action

In closing, we commend our Asian colleagues on offering a bold, research-grounded, policy-relevant call to action for the future of learning in their society. The case they make for focusing on IDC's three interconnected loops is strong, and we admire the effort to synthesize key ideas across many literatures in order to address a big societal need. The practicality of IDC is the source of its attraction; it is not just a philosophy of learning, but also a way to guide the design of learning activities that can be deployed at scale and have a positive impact on many students. We have found the opportunity to closely read this work to be provocative for our own situation here in the USA. IDC was invoked in a US-led scientific workshop earlier this year, and we plan to engage colleagues around it at a forthcoming US learning technology conference. We are mindful of the potential for longer-term impact and thus urge other learning scientists to consider resonances that may lead to the wider field to make a bigger contribution to the future of learning.

Abbreviation

IDC: Interest-Driven Creator

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Authors' contributions

JR and QB collaborated to write the paper, make revisions, and to read and approve the final manuscript.

Authors' information

JR is the Executive Director of Learning Sciences Research at Digital Promise Global. He is nationally and internationally recognized for groundbreaking research in computer-supported collaborative learning; learning with connected, mobile devices; and technology in mathematics learning.

QB is Senior Research Scientist in the Learning Sciences at Digital Promise Global. Quinn's research examines the effectiveness of different coding activities by which to introduce computer science and computational thinking.

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