LEGO Brick as Pixel:

Self, Community, and Digital Communication

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Abstract

Over the last three years the authors attended Brickworld Conventions for adult and teen fans of LEGO in Chicago. Through interviews, observations, and research they conclude that the LEGO brick is a medium replete with possibilities for creative construction and playful design beyond the expectations of its corporate producers. The history of the brick as a toy infuses play throughout its use, and the Internet provides a forum for adult and teen fans to communicate, critique, and discuss their creations. Online communication is perhaps the most interesting facet of LEGO play. It demonstrates a model of social change with LEGO builders of all ages in dialogue amongst a community of equals. This paper presents a case description of LEGO fans for future research on the burgeoning use of technology for play, communication, and the development of community.

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A LEGO Convention Vignette

It was 10:00am Sunday morning and we watched as the public flooded into four hotel ballrooms transformed into exhibition halls. Insiders, nerds, geeks, and families with children comprised the registered attendees who kept the lobby bustling and the elevators moving. They studied replicas of a Quantas Airbus A380, a wooden structured Comet rollercoaster, Wayne Manor and Batcave, the Sears Tower, Neuschwanstein Castle, Ankor Wat, the Chapel at Mont Sainte-Michael, an aerial steam vessel Pelican, an operating Shay locomotive, and many other creations that filled the exhibit halls. Children and adults alike viewed the models in amazed delight. Complete strangers interacted openly about their shared experiences at an exhibited piece, or next to tables crowded with mini-figure characters in scenes with science fiction settings or city architecture. Discussions of constructions encompassed various levels of sophistication, from admiration to complex analysis. We overheard the word “awesome” too many times to count. Most intriguing to us were the more playful fantasy and nostalgic cars, villages, castles, robots, vignettes and works of art like *Containment* (Figure 1) built by Tyler Clites and Nannan Zhang.

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Figure 1. *Containment* by Nannan Zhang and Tyler Clites (2010). “Somewhere on a desolate planet, a one man operated biosphere processing facility looms over the alien wasteland. A threshold separates the two worlds, but which one is contained?”

The scene described above was from Brickworld 2010, a LEGO fan conference in its fourth year. Interest and participation in LEGO building has grown so that attendance registration for the convention has nearly doubled each year, reaching 800 in 2010. Much of the information that follows developed from conversations and interviews with builders exhibiting at the Chicago suburban conference hotel. For example, Clites and Zhang shared details on their collaboration during a lunch interview on their LEGO experience. Later in this paper we discuss the significance of their work as an exemplar of the playful constructions and interactions of the fans of LEGO.

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LEGO. The word may conjure up images of children excitedly opening gift packages and eagerly spreading many small plastic pieces or “bricks” in a frenzy of construction. Commonly, LEGO is analogous with toy or hobby. However, to a select group of adults and teens, the LEGO brick is a means for self and community identity. Many AFOLs (Adult Fans of LEGO) and TFOLs (Teen Fans of LEGO) communicate with each other through Internet sites and come together in person at conventions. Sometimes they gather in a regional LEGO User Group, (LUG) more often found in large cities located in developed countries. Some of the members of this community create, collaborate, and communicate about their constructions using a variety of social Internet sites with the source of their motivation the LEGO brick. Since the advent of the Internet, the A/TFOL population has grown exponentially, a phenomenon unexpected by The LEGO Group (Antorini, 2007).

With computer technology omnipresent as part of the fabric of contemporary life, it is hard to resist the metaphors inherent in an A/TFOL phenomenon. The brick itself can be seen as a multidimensional pixel replete with unlimited possibilities. In 1974 the corporation LEGO Group calculated that the number of ways to combine six 2 × 4 LEGO bricks of the same color in a tower is 102,981,500. A/TFOL innovative use of the brick caused the LEGO Group in 2005 to realize that there are other ways to configure the same bricks and the number was recalculated to be 915,103,765 (Durhuus & Eilers, 2005). The reader can imagine the many factors that determine how each brick can be different. The brick as an object of choice, offers magnified possibilities to include

the number of studs, a multiplicity of shapes, a myriad of sizes, a rainbow of 53 colors including transparent bricks, and vast qualities of surface. Together, the LEGO system combined with a creative imagination becomes a medium of expression.

Historical Antecedents: Flow, Play Theory, Constructionism, and the Brick

From personal experience of having our son in three different Montessori schools, we can attest to the value of manipulatives used in educational settings. Brosterman (2002) discussed Froebel blocks, children's "gifts" or learning tools designed for the original kindergarten conceived by Fredrick Froebel. Interestingly, Froebel blocks were credited as being instrumental in the education and work of Frank Lloyd Wright (Brosterman, 2002). Wright is well known as one of the great architectural innovators of the twentieth century, and today Wright's architectural sites are transformed into marvelous LEGO models. Adam Reed Tucker, one of the Brickworld Convention organizers, designed models of the Guggenheim and Fallingwater in the Frank Lloyd Wright collection from the Architecture Series for the LEGO Group. Perhaps Wright was able to maintain his childhood pleasure in play as an adult architect.

Children often exhibit a natural engagement in their play activities. Csikszentmihalyi (1990) described a similar experience for adults, calling it *flow* or "the state in which people are so involved in an activity that nothing else seems to matter; the experience itself is so enjoyable that people will do it at

great cost, for the sheer sake of doing it" (p. 4). He discussed flow as a result of dissatisfaction or discontent. Anxiety and boredom create a tension out of which can arise a state of flow, an aspect of the complexity of the human consciousness. Similarly, Dissanayake (1988) equivocated art-making processes with the human act of play. She considered "art to be a derivative of play" (p. 75) where play like art is a rewarding activity, engaged in for intrinsic value.

Play often includes others and can build community. Brown (2009) claimed, "For adults, too, taking part in this play is a way to put us in synch with those around us. It is a way to tap into common emotions and thoughts and share them with others" (p. 63). The socializing characteristics of both play and art become more important when applied to teaching and learning. Building on Piaget's constructionism learning theory, Papert (1991) posited, "the idea that this [building knowledge structures] happens especially felicitously in a context where the learner is consciously engaged in constructing a public entity, whether it's a sand castle on the beach or a theory of the universe" (online). Relatedly Gauntlett (2007) referred to Papert's theory of constructionism in his research on identities and creativity using the LEGO system of bricks (p. 131). His findings demonstrated how LEGO Serious Play in corporate contexts motivated individuals to build metaphoric brick models influenced by individual identity. In contrast, we examined the LEGO brick as the metaphor itself, a pixel in a hyper-mediated world where a self selected community is viewed as a matrix.

Playful Creation Built on the Brick

The LEGO system, not unlike a brush, a chisel, or a camera, is a creative tool to a builder. The plethora of parts and ways to use them make the system a flexible medium for expression. We have seen the LEGO brick sometimes used to parody or pay homage to works from the traditional art canon, not unlike other contemporary art forms. The context of the LEGO work determines whether it is more similar to fine art and self-expression or can be viewed as a work of design and engineering with a focus on function. Frequently, the aspect of human interaction and play that is assumed both by the medium itself and by its users blurs the line between art and design. The brick becomes an alternate medium for voices often unheard in the "art-world." Simply because LEGO has the reputation of being a toy, its use carries a childlike sense of pleasure, imagination, and play.

Jonathan Bender (2010) described how the community of A/TFOLs, seemingly out of respect for the toy qualities of the brick and the audience of children who are fascinated by LEGO, self-censors itself. There are very few implied pornographic gestures in the creative work of the A/TFOL community. Bender stated simply:

> In policing itself, the AFOL community has set up standards and often has been the first to criticize creations that could negatively impact the family-friendly image of LEGO. The rules are simple: no

> booze, no sex, no drugs. It seems there is an unspoken agreement that AFOLs will build in this kids' version of the real world. (2010, p. 113)

Instead, a vibrant sense of humor runs through the range of creative constructions (called "My Own Creations" or MOCs by A/TFOLs) using the brick as the medium of expression. Our examination of Flickr group activity reveals many self referential MOCs and whimsical allusions to popular culture. Within the playful limitations as described by Bender and set by the community, the brick system itself allows the artist to construct with unlimited possibilities.

Some A/TFOLs construct in the original or classic themes established by The LEGO Group, including: space, train and town, and castle. Architectural replicas are another focus for fan builders. There is even a category at the convention called "art" that consists of mosaics. Another form of construction employs motors and LEGO Technic bricks to build robotics and marvels of engineering. The more traditional categories usually describe the work of older generations of AFOL, those we call Gen 1.0. Younger members of the community, usually 25 years and younger, mix and merge categories. We have classified them as Gen 2.0, and will focus on their work as exemplifying contextualization, innovation, and the potential of cyber tools for collaboration and critique.

One of the members of Gen 2.0, Nannan Zhang, first attracted our attention to the world of AFOLs with his Flickr posting of a LEGO surrealistic

vignette titled *A Clean Bathroom Within Reach by Instant Teleportation* (Figure 2). At that time, he was inspired by artists like Salvador Dali and Marcel Duchamp, as well as by the author H. P. Lovecraft. He has since moved on, carving out science fiction themes. His recent collaboration with Tyler Clites, *Containment*, exhibited at Brickworld 2010 in Chicago, demonstrated the possibilities of performance with the medium in a narrative construction including sound, lights, and movement. Prior to the convention the team of Clites and Zhang posted "teasers" of their construction on Flickr. The performance was the actual sharing of the MOC at the convention, culminating the artistic venture.

Figure 2. *A Clean Bathroom Within Reach by Instant Teleportation* by Nannan Zhang (2007).

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Although, much of the MOC building activity appears as the sort of aesthetic behavior that is arguably attributed to artists, many LEGO builders want to remain hobbyists. The work of Clites and Zhang is very sophisticated; both think about and discuss their works as artistic expressions. However, they describe their LEGO activity clearly as play. For example, T. Clites (personal communication, June 19, 2010), a film student, was invited to spend a week in Denmark to “work” with The LEGO Group design team. He enjoyed the experience but considered the work aspect of professional LEGO design as one that would eventually wear on his pleasure and creativity because of restrictive expectations placed on his designs by a corporation. N. Zhang (personal communication, June 19, 2010), concurred by discussing that as a premed student, having the time to deeply focus on his creative LEGO activity allowed him to restore himself and be a better student. Perhaps the LEGO constructions by Clites and Zhang are exemplary in their demonstration of artistic creativity and design skill, contextual format, and the emphasis on play. Again referring to Csikszentmihalyi (1990), the value of aesthetic play and creativity as a hobby can be seen in that it balances the ‘work’ of life.

In their collaborative process for *Containment*, Clites and Zhang made extensive use of cyber communication. Their Flickr photostreams and private discussion boards provided both visual and verbal contact over long distances. They used Skype to build and converse while simultaneously working from their separate locations in Florida and Missouri. Other A/TFOLs also stay in contact

through cyber networking. Similar to the innovative use of the brick as medium, A/TFOLs have used the Internet in new modes of dialogue through community building formats (Chrisman, Hanes, & Weisman, 2009). LEGO play shared through online modes provides opportunities and arenas for new configurations of self-expression and social interaction. Clay Shirky (2008) described this potential as a method to “organize without organization.” He suggested that the Internet provides users a forum that can be employed in manners and purposes not intended by the developers. In Shirky’s view, the Internet is a tool for creating more social capital, a political and economic characteristic that requires cooperation (p. 50). Undoubtedly, the cyber community and communication has been essential in the A/TFOL phenomenon. It has spawned models and methods of critique, collaboration, and social change. We see the Internet as creating avenues for critical coalitions with conversation that directly follows artistic product and process, an important resource for art educators in understanding aesthetic dialogue and critical conversation.

Online Dialogue and Community Critique of MOCs

There are numerous examples of critical dialogue concerning A/TFOL constructions. We were intrigued by the following conversation on Flickr involving both adults and teens over a MOC built by our son, Hawk Weisman. His participation in the hobby has developed over the years and at the time of this

research he continued to build as well as view MOCs online and contribute to discussion.

The following is a community critique that began with Hawk's short description of his spaceship, *Forsaken* (Figure 3)

Figure 3. *Forsaken* by Hawk Weisman (2010). "Threw this together way back when for the Asymmetry Challenge...never quite finished it until now. Still fleshing out the Syndicate fighters — this is everything the *Pariah* [an earlier shared MOC] was missing."

Comments from his online friends included the following. The pseudonyms, or online names, have been used as on Flickr. We have added "A" for adult and "T" for teen where known.

Apocalust (A): I dig the multiple angles you have going on here.

peterlmorris (A): How'd you not finish this? It's very refreshing, and the asymmetry is great. I think you should go ahead and add it to the thread.

нawк (T): What I meant to say was "never quite finished it until now". Shall add it to the thread.

Jacob (T): I don't quite see it

нawк: I'd be interested to know what you're not feeling.

Jacob: I think that as the complexity of the shapes you're dealing with increases, so does the care with which colours must be applied. Now, I won't go any further into the colouring because I'm barely able to articulate what I myself do. The shape is also too nebulous for me. Perhaps more angles would change my mind, but I can barely make out the overall shape—it looks like a bunch of modules connected with no base. With more traditional designs, our mind can fill in the gaps, but I think you need to be clear in what shape you do define when you tackle something as interesting as this.

Does that make any sense? Everyone else seems to love it, so I may be completely wrong, but there you go.

spooĸ (T): I'm afraid I'm with Jacob on this one, though I'm not yet sure what to say.

PeterImorris: I think you guys are nuts. The lack of coherence and any definable 'cockpit' or 'base' from which to branch out is what makes it refreshing. Also would make it a difficult target to kill from any angle except behind (where presumably the thrusters are) since there's no visual reference for what's critical and what's not.

Apocalust: I can partly see what Jacob is talking about. Some parts do feel "rough". I think there are parts that could use emphasis to really dominate the overall structure. I think that lower protruding area could use some love, and that could really take this to another level.

I disagree with Jacob regarding the whole thing feeling nebulous though. It looks like you had a very specific form in mind.

This is of course, my opinion based on my sense of aesthetics, so take or leave it as you wish.

нawĸ: Hi guys, I'm really sorry for the obscenely late responses.

> Regarding the shape, I see what you mean once again, but I can't help but feel like if you saw it from more angles, you might understand what's going on better. I can shoot some more angles if you like. Of course, your criticism is totally valid and while I probably won't be modifying this much, I'll keep it in mind on future builds.
>
> To everyone else who left a compliment, thanks a lot!
>
> **Jacob:** You flatter me with your thoughts, sir. It's isn't quite that dislike this *per se*, but that I can't really enjoy it without comprehending the basic idea. More angles? Certainly!
>
> **spooĸ:** I, too, would like more angles. In fact, after staring at it for a long time, I have decided that I quite like the shape. If this were monochrome, I would love it to death. Unfortunately, the color blocking that's going on kind of ruins it for me, I'm afraid. It's not the colors you chose that I don't like.. they just seem about as erratically placed as the way the shapes are placed, and I think in order for this to work, there needs to be a bit more order in the color placement. Just my 2¢.

We believe that this type of dialogue is valuable in demonstrating a primary purpose of critique—to promote the thoughtful growth of the artist. Much of the online conversation involved questions concerning choices and their responses.

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Liz Lerman (2003) outlined similar steps in the critique process that levels the opinion between teacher/student or adult/younger person. As educators, it is our duty to see that our teacher opinions are secondary to the experience and artistic growth of the students. In our mentoring, we must value the intention and response of the student as well as that of their peers, emphasizing the importance of their questions. The artist/creator should be able to explain where and what the appeal is, defining the context of the choices. Equally important, of course, is the acknowledgement that their choices of media, such as the LEGO system, can be used thoughtfully and innovatively. The role of the teacher/mentor is to guide the conversation and to offer questions and opinions as needed.

The story of one AFOL mentor in critical dialogue for this community is particularly meaningful and poignant. Nathan Nielson[1], or “nnenn”, as the community knew him, inspired many conversations and even started a forum specifically for criticism of MOCs. Nate stayed anonymous, perhaps because he was an academic graphic designer. Color was very important to nnenn and others of the group held his spaceship designs in high esteem. He designed specifications for a particular style of spaceships called Vic Vipers, inspired by the video game Gradius from the mid-1980s. In November 2008, there was a Vic Viper online event where anyone could submit a MOC that met the Vic Viper specifications. Dozens of A/TFOLs contributed MOCs to this forum, still accessible online at the time of this publication. Another Flickr conversation demonstrated nenn’s adult interaction in critical response to *Steampunk Walker*

Mecha Tank (Figure 4), a work by Matt Hamann, an adolescent.

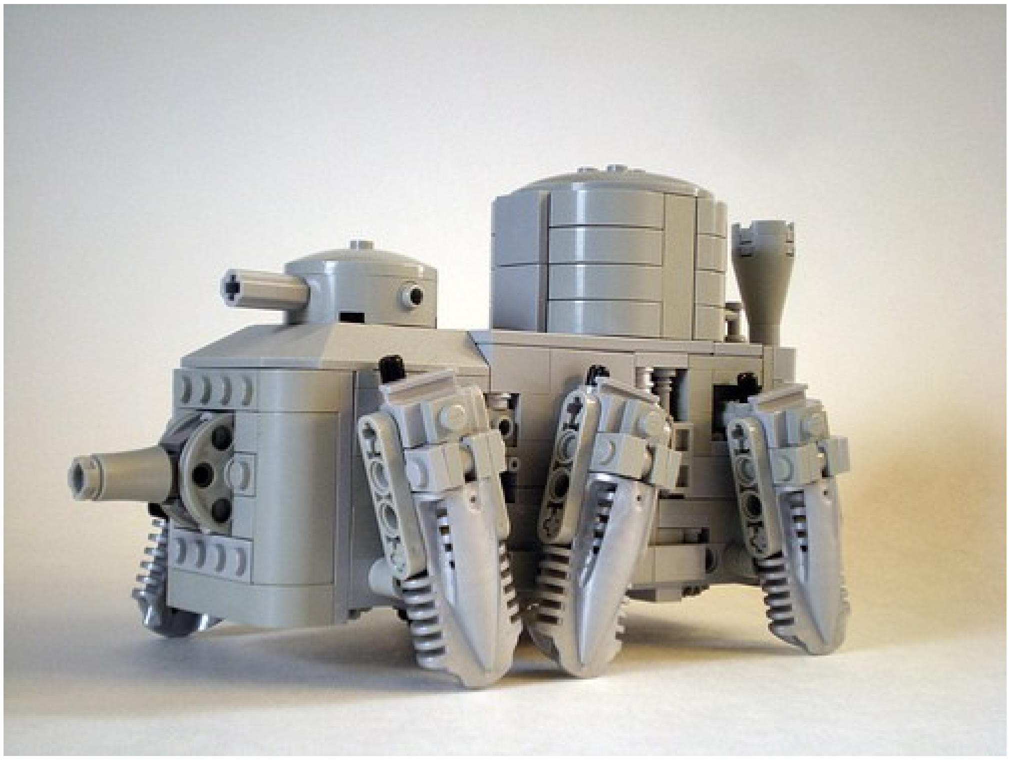


Figure 4. *Steampunk Walker Mecha Tank* by Matt Hamann (2009).

nnenn (A): Nice inset turret. (Next time, hit this with a splash of some other color here and there.)

JordanTNeves **(T):** Dear Nnenn,

No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No. No.

...

No.

nnenn: Heh... and why's that?

gerrit carstensen **(A):** a little bit of color would look good provided its in the right spot

JordanTNeves**:** I think "moar colors" is an overused sentiment. I really enjoy the starkness of this, personally, and having colors just for the sake of colors would be pointless. I may be ignorant to the fact that tanks are really, really colorful though.

nnenn**:** Hmm... so a critique is invalid if it's been used elsewhere, huh? And you feel I was just repeating an overused sentiment, correct?

You're right, 'colors for colors sake' would be pointless... which is why I didn't say such. Perhaps I should have noted the point of adding a bit of color is to break up monotony and provide visual interest.

But, Jordan, I'm hardly suggesting this, am I? (Figure 5)

Figure 5. nnenn's suggestion to Jordan (Photographer unknown, n.d.).

The conversation became a discussion among equals focused on the controversy between the TFOLs and nnenn concerning the use of color. As an adult, an educator, and a practicing illustrator, nnenn's expertise was both valued and disputed. He provoked other builders, both young and old to think critically about their choices and to defend them while offering other perspectives. His influence on future generations of AFOLs will remain a positive one, as the LEGO brick continues to be a foundation for playful artistry and design.

Discussing the Future of Play

Lisbeth Valthar from The LEGO Group used the phrase "inventing the future of play" in her keynote address at Brickworld 2010. Perhaps it is the A/TFOLs who are in a process of re-inventing both play and art in their use of the

brick as a pixel in the construction of cyber generations of LEGO artists who incorporate communication, exhibition and critical dialogue over the Internet. Our examples have come from LEGO enthusiasts who are mainly interested in "space" and science fiction. Not all A/TFOLS communicate through online forums to the degree that these A/TFOLs do nor do they all enjoy the same type of contextualization as our interviewees.

However, we think that the stories of Clites and Zhang as well as nnenn demonstrate the evolution of art and play for the twenty-first century. Richard Anderson (1990/2004) provided a cross-cultural analysis of the various roles of art to help people make sense of their world. Because the Internet allows for a diverse global population to connect, perhaps A/TFOLs are participating in a new playful aesthetic behavior as they use the brick plus online communication to fulfill the role of art described by Anderson (1990/2004). The A/TFOLs are using their creative medium as play to build social identity in a contemporary society, often fragmented and violent. We see LEGO as an up-lifting example of a familiar toy with the reputation of use by children having been transformed into a medium for playful art making by teens and adults. People with a similar interest in the use of the LEGO brick may feel isolated without the online community. It is equally important to note the importance of the yearly or regular conventions where in-person sharing or performance of the MOCs solidifies the network of the community. These conventions can be viewed as ritual gatherings, replete with spiritual spending, transformation, and then a return to a renewed normalcy upon departure. One dimension of LEGO adult play is that through sharing of

constructions with critical dialogue, meaningful coalitions can be made through both cyber-space and natural-space.

From Bricks to Pixels, Both Educational Toys

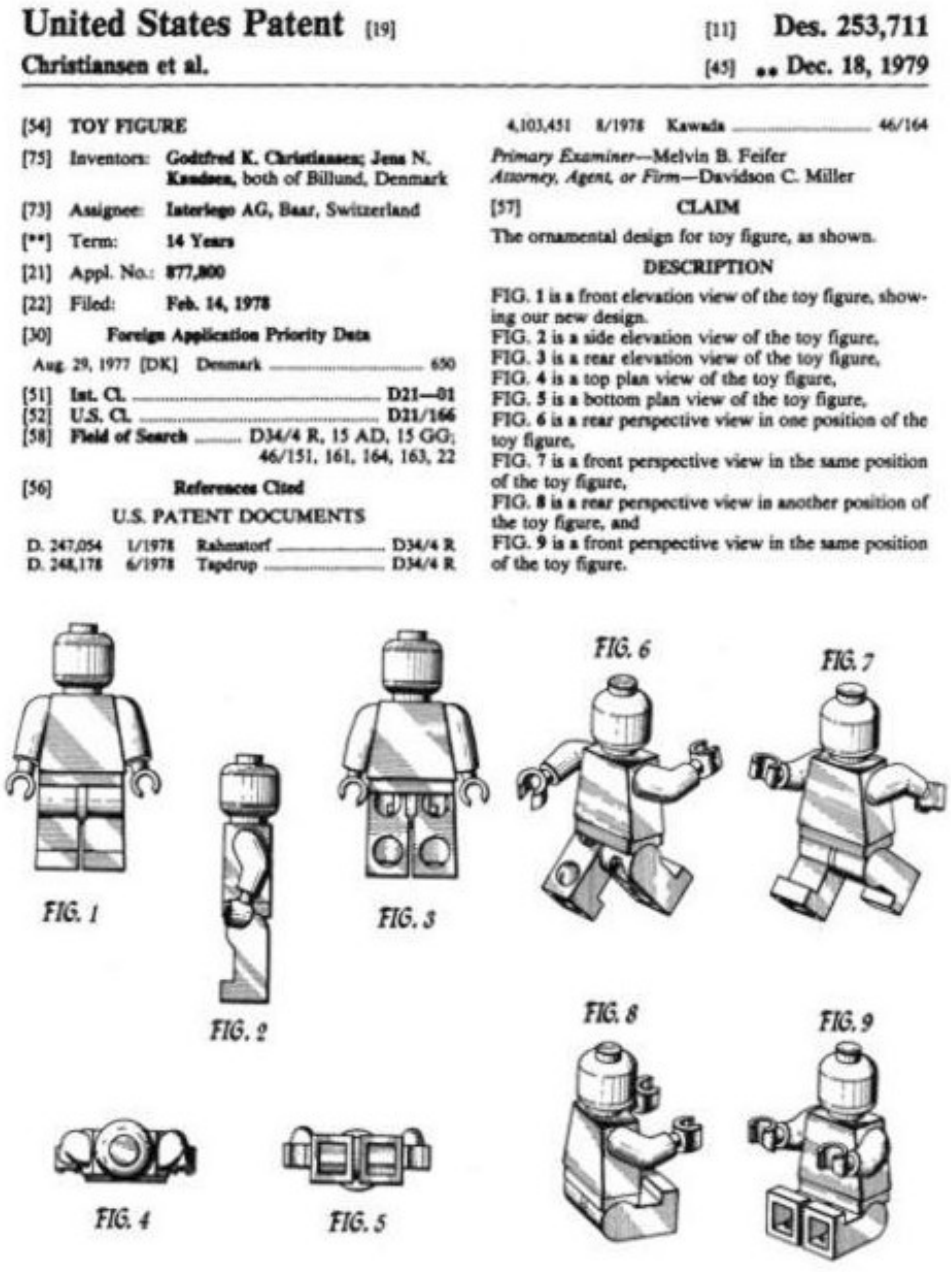
So what does the LEGO example mean for educators? Clearly, there is a distinction between work and play for both adults and young students. When schoolwork retains an element of play, then it engages students. Perhaps only a few students would choose to *play* with LEGO, but many might decide to use media, such as the brick and Internet, to communicate with a peer locally or potentially long-distance. From “here is a model of my house; let’s see yours” to “how can we design together a scene of water purification that aesthetically harmonizes with a location?” teachers and students can create meaningful social change through playful art-making. All this can be possible with the brick and the cyber pixel, creating a new vernacular global art form.

From the technology of the block and brick to those based on the pixel and microchip, much can happen in the human imagination. Art educators have contributed to the literature on technology and education through critical writings on contemporary innovations, software, and devices as well as their use in both the classroom and museum environments (Liu, 2008; Parks, 2009; Taylor, 2009; Yang, Peck, Mozdzierz & Waugh-Fleischmann, 2010). Shin (2010) provided an excellent example of integrating digital creativity into art curriculum while urging art educators “to explore, experience, and embrace creative digital world and

technologies" (p. 42). We agree with Shin and further add the encouragement to embrace the element of play possible in digital technologies as evidenced in the A/TFOL cyber community. Possibilities for applications of the lessons from LEGO are endless, limited only by the imagination of the user. Furthermore, the intergenerational dialogue between A/TFOLs could be a model for inter-grade conversation guided by a transgressive art teacher who is not afraid to cross boundaries set by the establishment. In other words, we suggest that educators take the risk to make connections between disciplines and generations in school settings.

Such teachers can redefine curriculum, using art and now the medium of the brick as resources for: historical vignettes, scenes from literature, math calculations, process drama, and structured play as educational method. The LEGO Toy Figure, commonly known as a Minifig, itself fosters discussion of archetypes and identity. A Minifig is a small plastic bipedal form that gesticulates in multiple directions as shown in Figure 6. There are a variety of human and robotic faces and forms available that interchange. Often LEGO users create custom Minifigs for their MOCs that represent themselves metaphorically called sigfigs that are sometimes used as personal icons or avatars in Internet chats. While not easily viewed in Figure 1 of this document, Clites and Zhang carefully placed a lone human Minifig in *Containment* to emphasize the question of who is contained. In addition, Clites and Zhang placed sigfigs that identified themselves in the tableau.[2] The Minifigs extend the practice of play with LEGO bricks in social roles as dolls or action figures often do, thus extending the social aspect of

coalitions of play. Educators can encourage the use of Minifigs as well as multiple uses of LEGO bricks in a variety of ways to encourage the construction of identity and community.



United States Patent [19]

Christiansen et al.

[11] **Des. 253,711**

[45] **•• Dec. 18, 1979**

[54] **TOY FIGURE**

[75] Inventors: **Godtfred K. Christiansen; Jens N. Knudsen,** both of Billund, Denmark

[73] Assignee: **Interlego AG,** Baar, Switzerland

[**] Term: **14 Years**

[21] Appl. No.: **877,800**

[22] Filed: **Feb. 14, 1978**

[30] **Foreign Application Priority Data**

Aug. 29, 1977 [DK] Denmark 650

[51] **Int. Cl.** ..... **D21—01**

[52] **U.S. Cl.** **D21/166**

[58] **Field of Search** ..... D34/4 R, 15 AD, 15 GG; 46/151, 161, 164, 163, 22

[56] **References Cited**

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D. 248,178	6/1978	Tapdrup	D34/4 R
4,103,451	8/1978	Kawada	46/164

Primary Examiner—Melvin B. Feifer
Attorney, Agent, or Firm—Davidson C. Miller

[57] **CLAIM**

The ornamental design for toy figure, as shown.

DESCRIPTION

FIG. 1 is a front elevation view of the toy figure, showing our new design.
FIG. 2 is a side elevation view of the toy figure,
FIG. 3 is a rear elevation view of the toy figure,
FIG. 4 is a top plan view of the toy figure,
FIG. 5 is a bottom plan view of the toy figure,
FIG. 6 is a rear perspective view in one position of the toy figure,
FIG. 7 is a front perspective view in the same position of the toy figure,
FIG. 8 is a rear perspective view in another position of the toy figure, and
FIG. 9 is a front perspective view in the same position of the toy figure.

FIG. 1 FIG. 2 FIG. 3 FIG. 4 FIG. 5 FIG. 6 FIG. 7 FIG. 8 FIG. 9

Figure 6. Toy Figure patent (1979).

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It is not merely coincidental to this paper that Ole Kirk Christiansen, the originator of LEGO, chose to name his toy from the Danish terms *leg* and *godt* that mean “play well.” It is also interesting to note that in Latin the word *lego* means “I assemble” (Bender, 2010). Similar to the pixel as the building block of digital images, the LEGO brick is the micro-element used by A/TFOLs as a medium to assemble complex constructions. The corporate LEGO Group itself is learning about innovations from A/TFOLS that are not driven by the profit motive, comparable to the manner that open-source software drives the industry. As Shirky (2008) claimed, there is a potential for progressive social change through creative digital organization. Perhaps educators can join the implicit conspiracy of A/TFOLs by infusing play into learning, art, construction, and critique. Our hope is that art teachers will fashion personal inroads into using serious play and alternative media to engage students in the process of seeking better understanding of self and community in an age of digital communication.

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1

Tragically Nate died in an automobile accident in April 2010; his death inspired over 250 thoughtful comments from A/TFOLs who had never met him in person and knew him only through the cyber-world. After his death, A/TFOLs at Brickworld 2010 created a missing man Vic Viper formation in his memory. His death still brings tears to many members of the community. We value the legacy that nnenn left to the playful and meaningful gift of feedback.

2

Relatedly, Clites and Zhang included a vignette in *Containment* as a memorial to nnenn. An anonymous Minifig chisels a monumental sculpture of his Flickr icon brick.