

Tangled Realities? A Short Essay

Sandra L. Arlinghaus and William E. Arlinghaus

“Die Strahlen der Sonne vertreiben die Nacht!”
Mozart, Die Zauberflöte

Augmentation Superimposed on the Real World

Augmented worlds appear to be here to stay (Esri, 2015). Often we don't think much about them, instead taking their graphic convenience in communication for granted. Is a bar code an augmented reality? Surely the yellow first down marker superimposed on football fields in TV pictures is a form of augmentation. Indeed, when the football field is covered with snow, armchair quarterbacks can see the yardline that is the target for the first down even when the athlete-quarterback on the field cannot.

In the augmented reality of Pokémon Go, one can place a “Pidgey” in a photograph with a public figure (Figure 1). Or, place an “ExEggCute” as extra foam on a mug of beer (Figure 2). The ‘real’ and the ‘imaginary’ come together in an ‘augmented’ world that mixes parts of the ‘real’ with parts of the not-so-real—typically by superimposing digital images on real-world scenes.



Figure 1. Picture of Pidgey Pokémon, Neshoba County Fair, Mississippi. Photo by William E. Arlinghaus.



Figure 2. Picture of ExEggCute Pokémon as extra foam on a mug of beer. Photo by Shana Westbrook Decker.

One advantage to this particular game is that it gets people up and out and walking around (unless they choose to trick the GPS in their smartphones and sit on the sofa and cheat), (PokéMango, 2016). They are creating social networks with their feet and sharing results in contemporary media. But, is this new? Or are current 'augmented realities' actually a transformation of parallel ideas from the past as enabled by contemporary technology?

Today, people run up and down the sidewalks hunting for a rare Pokémon to fill in their collection on their Pokédex. They compare notes on which Pokémon they have and which ones they need. How does that practice differ substantially from collecting postage stamps (philately) or coins (numismatics)? We fill albums with stamps and coins; we search to complete series of stamps or coins; there are even stores devoted to selling stamps and coins as well as services that ship them to you on 'approval'. People trade stamps and create social networks of traders. They may share results of their efforts in magazines or other media contemporary in earlier times (e.g., *The CartoPhilatelist*). The physical objects of stamps and coins are small windows to another world, indeed to an augmented reality. Imagine the thrill of acquiring a beautiful stamp from Madagascar with a giant fan-shaped palm tree on it. It's an easy step from there to visualizing the beauty and fascination of surrounding lands rich with plants and animals one has never seen.

Pokémon Go brings the hunt for these fascinating creatures to life within an augmented reality captured in contemporary technology. Physical landmarks, such as downtown businesses, serve as locales for acquiring PokeBalls and related materials to be used to capture the imaginary Pokémon animals (PokéGoMap, 1016). One can acquire PokéCoins, fruit, candy, and eggs (from which to evolve new animals). Still other locales serve as 'gyms' for training these animals that may ultimately serve as warriors in defense of their 'nation'. What are the associated problems involving boundary demarcation in both the augmented and real worlds? (Srebro, Pinther, et al., 2013). The parallels are many and striking in concept although not in precise implementation. Technology, in this context as well as in many others, appears to enlarge the realm of available possibilities and to derive that enlargement capability from a platform of existing parallel contexts. It is the latter derivation that, of course, underscores the critical need for universal and liberal education.

From a somewhat different vantage point, imagine a dark forest or an old mansion in a town; people sit around and tell ghost stories and envision odd-looking figures lurking in the woods, along river banks, hanging from bridges, or living under creaky staircases. They hear noises; are they really there? They see floating green orbs on the hood of their car. How does this imaginary world created in the mind and superimposed on the real world differ from the augmented worlds of Pokémon Go?

The Real World Superimposed on the Augmented World

As I sit in the Brickhaus Brewtique in Meridian MS I am struck by these parallels as I see Pokémon Go players running up and down the outside downtown sidewalks and competing with each other for prime locations to sit where they will be in the set-theoretic intersection of three PokéStops so they can optimize their capability to snag many PokéBalls to use to capture Pokémon. The owner of the Brickhaus Brewtique (William E. Arlinghaus), who also knows basic set theory, is able to capitalize on this superimposition by running a PokéMenu and delivery service to the groups sitting in the intersection of PokéStops in an outdoor plaza in downtown Meridian MS. When the packs of teens are not there, he attracts them to his bricks and mortar business by spending a few coins to place a lure on the nearby PokéStop which then spews large numbers of Pokémon; the virtual lure becomes a business magnet.

How else does the Pokémon craze affect human behavior? Will businesses that welcome throngs of teen Pokémon players, who do not spend much money now, reap rewards later when adults return to the haunts of their teenage years? A recent trip to the University of Chicago showed numerous PokéStops near the Regenstein Library. Indeed, a PokéGym, that appeared quite active, was superimposed on the new Mansueto Library (not as an action taken by the university). What might that suggest about the behavior of students, or others, inside the library? Are they jettisoning reading books in favor of battling in a Pokémon Gym; or, from a more positive viewpoint, are they being drawn more frequently to the library, where perhaps they will use it (too), because there is a Pokémon Gym there?

Beyond behavioral aspects, and conclusions for business or educational patterns in the real world, what concepts from the academic world might be constructively superimposed on the augmented reality of Pokémon Go or other augmented worlds to generate more insights? The world of Pokémon Go is a plane; is there a place for theories such as central place theory, or for models such as those of von Thünen, Burgess, Harris and Ullman, or others? What is their interpretation in this world, not a trivial issue, and what understanding might they, and other existing concepts, yield (Esri, 2015)—a direction for future study?

Then, I reflect on a recent conversation with my friend Brian Johnson who came to Meridian from Michigan to take drone photographs of Stuckey's Bridge in anticipation of learning more about the ghost stories associated with the legend of that bridge. Will those stories survive? Perhaps only if the geographic constraints permit them to do so...for a good ghost story one needs darkness (Figure 3). And, it appears one has it in the augmented stories surrounding Stuckey's Bridge (red pin location)!

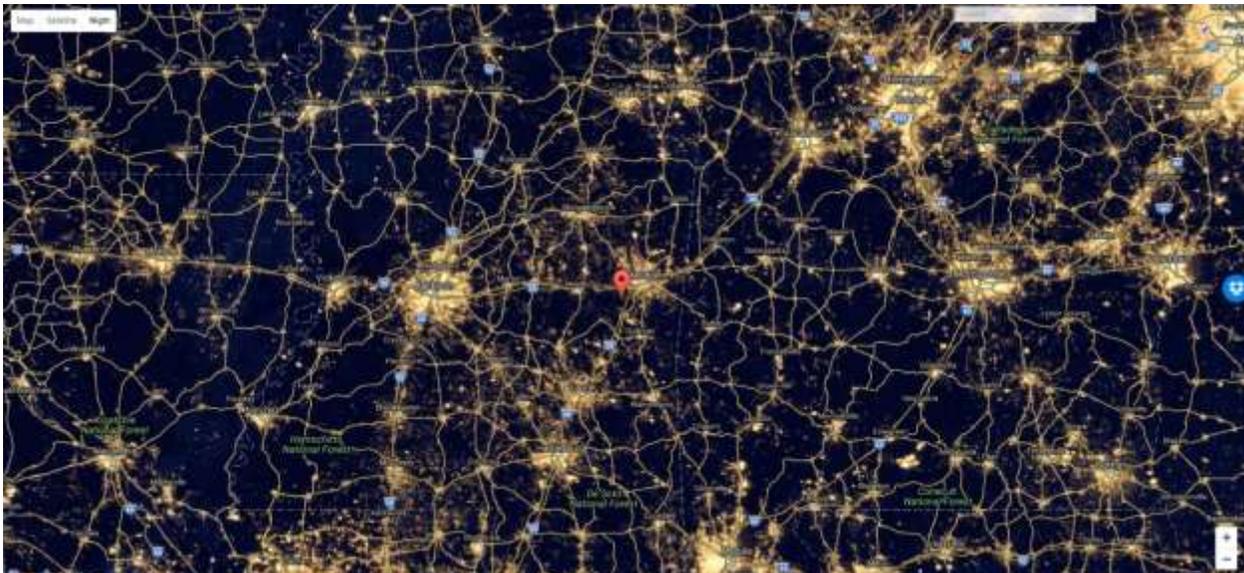


Figure 3. Stuckey's Bridge at the red drop pin, southwest of Meridian, MS. Nightlights image from Blue Marble. Atlanta at the upper right of the image.

Taking a closer look--Figure 4 suggests continuation of the needed dark space in the upcoming future. Will Pokémon come and Go, again...as tales of Stuckey's Bridge, philately, numismatics, and other endeavors that tap the 'collector' mentality of different worlds, endure? Where will the next transformation surface? Will studies that weave real and augmented realities together, independent of direction of a superimposition transformation, help to untangle their interaction?



Figure 4. A closer look. The triangle of space among Meridian, Hattiesburg, and Jackson, MS. Plenty of dark space along the corridor between Jackson and Meridian (the red pin of Stuckey's bridge is in the top right corner of a roughly equilateral triangle).

Or, in the words of Mozart, will the sun's rays drive out the night---in both the real world of a darkened rural Mississippi bridge over the Chunky River as well as in a broader context where enlightenment defeats ignorance?

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