Projekt (Spiel)film

Wintersemester 2011/ 2012

Machinima: „*Spiderman in : Irene – windy periods* “ by Constanze Link

Tutor: Prof. Mario Doulis

Pathway: Interface Design

The idea

Spiderman helps New York to fight against the evil, crime and iniquitousness. The main problem in New York are not those factors, but the global warming. The causation are the people who move the greenhouse effect . Who shouldn't Spiderman deal with more essential affairs? Even if politicians often dismiss this challenge, the nature catastrophe like Hurricane „Katrina“ or „Irene“ , which collided in August 2011 with New York, bring them back down to earth again. In this machinima I ask myself: Why doesn't a superhero of New York go for something against the global warming, if there are so many of them?

The first base to prepare myself for the project was to study some films, which include the main issue:

Highlander I: for the understanding of New York's setting

Twister: to comprehend how a hurricane or twister works

The Global Warming Swindle, Eine unbequeme Wahrheit: to focus the facts, problems and solutions of global warming

Watchmen and Spiderman 1-3: to understand and face the different views of superheroes

Programms and accomplishment of the project

The program Fraps records certain gamedetail. After this I record the gamedetail over the VLC Player with a screen capture and it is transcribed to .mov size.

Finally, all scenes are cut together in iMovie.

For my Machinima I used the games : Spiderman - Web of Shadows and Spiderman 3

The Story

The Story is based on 8 challenges against global warming, which Spiderman has to deal with. He must anticipate the catastrophe called hurricane Irene. But unfortunately he recognizes, that this might be the hardest mission in his career, because he must confide in the people of New York. Only conherence and teamwork can stopp the hurricane. The last challenge seems to be all but impossible. The final part is based on the myth of Heracles,who has to deal with 12 tests but unfortunately fails at the last task.

The eight tips: What can you do against global warming? - and how Spiderman solves the challenges

1. ***Switch to an independent green energy supplier***
This action is simple to imply and offers positives impacts for the climate. An average 3-4 person household can result in savings of up to 1.9 tonnes of CO2 a year.

- Spiderman wants to recruit some pedestrians for a green energy supplier

2. ***Use the bicycle, bus or train to go to work***
If you travel about 20 kilometers per day to work, you save an average fuel consumption of its car from 10 liters per 100 kilometers, ca. 800 kilograms of CO2 a year.

-Spiderman destroys the cabs and reduces the traffic in New York

3. ***Reduce your meat portion***
If you eat a balanced and reduce your meat portion (or even become vegetarian), you will save the world climate around 400 kilograms of CO2 a year.

-Spiderman beats up the butchers

4. ***Renounce on domestic and short haul flights***
A single round-trip flight Munich-Hamburg causes 340 kg CO2. The train journey takes longer but is much more environment friendly.

-Spiderman sticks the engine with his webs so it is not longer able to fly

5. ***Buy organically grown food in your region***
If you operate organic farming, one needs only half the energy. For long runs also caused excess emissions: A meal of 100 grams of asparagus from Chile caused solely by the transport 1.7 kg of CO2 emissions. From their own region for asparagus season: only 60 grams.

-Spiderman runs into the market place and beats up all the people who sell food from regions, which are far away. He says: skyfarming is an alternative way for planting vegetables in a city.

*6.****Turn the heat down***
You should not sit in the cold. But lowering the room temperature by one degree reduces the CO2 emissions of a four-person household per year to around 350 kilograms. Lower the temperature at night in the apartment in general to 15-16 degrees, which again saves nearly 300 kilograms of CO2

-Spiderman climbs into the appartments and turns down the heat

*7.****Wash with a low temperature and full machine***
Let the pre-wash and wash away, you should generally wash with a maximum of 60 degrees, only in exceptional cases, with 95 degrees. Most laundry is perfectly clean even at 30-40 degrees. Then into the dryer but not on a leash. Potential savings: up to 330 kilograms of CO2 per person per year.

-Spiderman exhorts people not to wash their clothes over 40 degrees

8. ***Turn off all electrical appliances that you are not using right now***
The so-called standby circuits are convenient because you no longer must rise from the sofa or the bed to turn on your TV, VCR or stereo. But the devices also consume energy in this state - often unnecessarily large. Devices that have no Off-button should be connected to a switchable power strip. Savings per household of 300 kilograms of CO2 are possible

-Spider turns out all the lights of the Times Square[1]

1 http://www.greenpeace.de/themen/klima/kampagnen/klimaschutz/detail/artikel/die_zehn_wichtigsten_tipps_was_sie_fuer_das_klima_tun_koennen/

Hurricane Irene

This article is about the hurricane in 2011. For other storms of the same name, see Tropical Storm Irene (disambiguation).

Hurricane Irene

Category 3 hurricane (SSHS)

Hurricane Irene over the southern Bahamas on August 24

Formed	August 21, 2011
Dissipated	August 28, 2011
Highest winds	*1-minute sustained*: 120 mph (195 km/h)
Lowest pressure	942 mbar (hPa; 27.82 inHg)
Fatalities	49 direct, 7 indirect
Damage	$10.1 billion (2011 USD)
Areas affected	Lesser Antilles, Greater Antilles, Turks and Caicos, the Bahamas, eastern United States (Landfalls in North Carolina, Connecticut, New Jersey, and New York), eastern Canada

Part of the **2011 Atlantic hurricane season**

Hurricane Irene was a large and powerful Atlantic hurricane that left extensive flood and wind damage along its path through the Caribbean, the United States East Coast and as far north as Atlantic Canada in 2011. The ninth named storm, first hurricane and first major hurricane of the annual hurricane season, Irene originated from a well-defined Atlantic tropical wave that began showing signs of organization east of the Lesser Antilles. It developed atmospheric convection and a closed cyclonic circulation center, prompting the National Hurricane Center to initiate public advisories late on August 20, 2011. Irene improved in organization as it passed the Leeward Islands, and by August 21, it had moved closer to Saint Croix, U.S. Virgin Islands. The next day, Irene made landfall at Category 1 hurricane strength in Puerto Rico, where severe flooding resulted in significant property damage and the death of one person.

Irene tracked just north of Hispaniola as an intensifying cyclone, pelting the coast with heavy precipitation and strong winds and killing seven people. After crossing the Turks and Caicos Islands, the hurricane quickly strengthened into a Category 3 major hurricane while passing through The Bahamas, leaving behind a trail of extensive structural damage in its wake. Curving toward the north, Irene skirted past Florida with its outer bands producing tropical-storm-force winds. It made landfall over Eastern North Carolina's Outer Banks on the morning of August 27 as a Category 1 hurricane, the first landfalling hurricane in the U.S mainland since Hurricane Ike, then moved along southeastern Virginia, affecting the Hampton Roads region.

After briefly reemerging over water and weakening to a tropical storm, Irene made a second U.S. landfall near Brigantine Island in New Jersey early in the morning of August 28. Irene then made its

third U.S. landfall in the Coney Island area of Brooklyn, New York, at approximately 9:00 a.m on August 28. Considerable damage occurred in eastern upstate New York and Vermont, which suffered from the worst flooding in centuries.

Throughout its path, Irene caused widespread destruction and at least 56 deaths; monetary losses in the Caribbean were estimated to be as high as US$3.1 billion.[6] Damage estimates throughout the United States are estimated near $7 billion, which remains an uncertain estimate.

Hurricane Irene in New York

In New York City, the Hudson River flooded, starting at approximately 8:50 a.m. on August 28, into Zone B as well as Zone A, mostly in the Meatpacking District along the Hudson River in Manhattan. At 9:15, the northern tube of the Holland Tunnel closed, but was soon re-opened. As of 9:20, the flooding was at about a foot deep. The police reported 30 arrests during the storm, some in domestic violence cases resulting from couples forced to remain inside.

When the northward-moving storm made landfall in the New York area, Long Island was on the eastern side of the storm's center and therefore experienced the area's strongest surface winds because of the storm's counterclockwise wind flow. Long Beach and Freeport, both of which experienced serious flooding, were among the worst-hit towns on the Island. In Long Beach, ocean waves destroyed a two-story lifeguard tower, loosening it and smashing it against a boardwalk. Nassau County Executive Ed Mangano stated that flooding had left many roads impassable.

Extensive power outages occurred in both Nassau and Suffolk counties on Long Island. Almost 350,000 homes and businesses were without electricity, mainly due to heavy winds knocking down trees, which in turn knocked out many power lines. Rising frustration among residents over the slow pace of power restoration led Cuomo to call on the Long Island Power Authority (LIPA) to replace system operator National Grid, whose contract is up for renewal.[2]

Formation of a hurricane

Tropical cyclones can develop in the Gulf of Mexico, the Caribbean Sea, the Pacific and Atlantic Oceans. They are born in moist tropical air. About every four to five days, a tropical wave of low pressure moves along with westerly winds. Some of these waves develop into tropical depressions, tropical storms, and hurricanes.

In developing tropical cyclones, strong thunderstorms occur. Air pressure drops at the surface of these storms. This low pressure attracts warm moist air from the ocean's surface. The Coriolis force causes the resulting low-level winds to spiral in a counterclockwise direction around the center of the low in the Northern Hemisphere. (Winds swirl clockwise in the Southern Hemisphere.)

Typically, an "eye" forms when the tropical cyclone reaches hurricane strength, but an eye is not necessary for a tropical cyclone to become a hurricane.

Another way to think of a hurricane is as a large heat engine. The fuel is moisture from warm ocean water. The moisture is converted to heat in the thunderstorms that form. Spiral rain bands that surround the tropical cyclone's core help feed the circulation more heat energy.

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2 http://en.wikipedia.org/wiki/Hurricane_Irene_%282011%29

As air nears the center, it rises rapidly and condenses into clouds and rain. The condensation releases tremendous amounts of heat into the atmosphere. The result is lower surface pressure and strengthening winds.

In this way, the tropical cyclone's engine refuels itself, concentrating its power in a donut-shaped area, called the eye wall, surrounding the center. The eye wall typically contains the strongest surface winds.

Sinking air at the center clears the tropical cyclone of clouds and forms the "eye."

Falling surface pressure can occur only if air mass is removed from the circulation center. This is accomplished by wind flowing away from the circulation in the upper atmosphere. [3]

About Spiderman

The Boy, the Bite, and the Burglar

Orphaned as a baby when his parents were killed overseas in a plane crash as U.S. government spies, only child Peter Parker was raised by his elderly Uncle Ben and Aunt May. Academically gifted, Peter displayed an uncanny affinity for science that was nothing short of genius. Socially, however, he was painfully shy and the target of much cruelty by his peers at Midtown High School. Attending a public science exhibit when Peter was 15-years old, he was bitten on the hand by a radioactive spider accidentally irradiated by a particle beam, empowering Peter with the arachnid's proportional strength and agility, and the ability to cling to almost any surface.

Most incredibly, he had gained a sixth sense that provided him with early warning of impending danger. Disguised, Peter tested his new-found abilities defeating professional wrestler Crusher Hogan in the ring, and earning some cash. Using his scientific prowess, he constructed a pair of artificial web-shooters that attached to his wrists. With an agent, a costume, and a new name, Spider-Man became an overnight sensation on television. Unconcerned with the rest of the world, he vowed to use his powers only to take care of himself and his aunt and uncle. After his first TV special ended, he allowed a burglar that he could have easily restrained to run past him and escape. A few days later, Peter returned home to find his beloved Uncle Ben had been shot and killed. When Spider-Man confronted the killer hiding in the old Acme Warehouse at the waterfront, he discovered to his horror that his uncle's murderer was the burglar he apathetically allowed to pass. Consumed with guilt, he became aware at last that with great power comes great responsibility, just as his beloved uncle had once said.

To help his Aunt May with finances, Peter took a freelance job at the Daily Bugle selling pictures of himself as Spider-Man to publisher J. Jonah Jameson. Despite Spider-Man rescuing his son, astronaut John Jameson, from a malfunctioning space capsule, Jonah used his newspaper to publicly condemn Spider-Man as a menace. Unlike heroes like the Fantastic Four or the Avengers, Spider-Man was mistrusted and feared by the public. At school, his popularity was no greater, as "Puny Parker" frequently clashed with bully Flash Thompson and his followers. Flash's girlfriend, Liz Allan, often complicated matters, harboring a crush on "Petey" and making Flash jealous.

A Gathering of Enemies

Spider-Man soon found himself facing a rogue's gallery of powerful thieves, gangsters, and megalomaniacs including the Chameleon, the Tinkerer, the Vulture (Adrian Toomes), Doctor Octopus (Otto Octavius), the Sandman, Doctor Doom, and Electro. In Florida, he befriended Dr.

3 http://www.weather.com/encyclopedia/tropical/forecast.html

Curtis Connors after administering an antidote to reverse his transformation into the terrible Lizard. Though he had many enemies, he also shared adventures with the Fantastic Four (including rival the Human Torch), the Avengers, the X-Men and Daredevil. At the Daily Bugle, he discovered a friend and his first love, Jameson's secretary, Betty Brant. Even more villains clashed with Spider-Man including the Green Goblin, the Big Man and the Enforcers, Mysterio (Quentin Beck), and Kraven the Hunter. Dating Betty became awkward after her brother, Bennett, was murdered in a clash between Doctor Octopus and Spider-Man. Betty at first held Spider-Man responsible. Though she later recanted, the thought of Spider-Man reminded her of losing her brother. At home, Aunt May suffered a heart attack, causing Spider-Man to abandon a fight with the Green Goblin. For a while after, the public viewed Spider-Man as a coward, before he made a comeback. May's fragile health and poor finances, however, remain a lingering concern. Frustrated by their defeats at the hand of Spider-Man, six of his top villains gathered forces under Doctor Octopus to form the Sinister Six. Through wits and determination, Spider-Man defeated the group one at a time.

Peter Parker's confidence gradually increased. At the same time, his relationship with Betty crumbled as handsome reporter Ned Leeds stole her heart. Jameson took his campaign against Spider-Man to a new level, sponsoring the creation of the deranged Scorpion, under Dr. Farley Stillwell. Though the Scorpion turned on Jameson, the publisher persisted with attacks against Spider-Man, and rented the first of a series of robotic Spider Slayers invented by Dr. Spencer Smythe. Spider-Man was able to use his technical know-how to defeat the Slayer. While Aunt May persisted with attempts to introduce Peter to Mary Jane Watson, the niece of neighbor Anna Watson, Spider-Man tackled organized crime led by the Crime Master and the Green Goblin. Tired of the Bugle's harassment, Peter tried selling pictures for the Daily Globe but gave up when the Globe's editor proved too nosy.

Peter Makes a New Friend from Outer Space

Certainly there always was plenty of action for Spider-Man in New York, especially with the appearance of the deadly Hobgoblin, and Peter's troubles with his symbiotic black costume he obtained after being whisked away to the Secret Wars, a battle on a far away world between the Earth's greatest heroes and villains orchestrated by the enigmatic Beyonder. His costume shredded, Spider-Man thought he obtained a new black and white costume (similar in design to the new Spider-Woman) from a costume making machine. After returning home to Earth, Peter discovered his costume was actually a living entity, feeding off his adrenalin as it possessed his body while he slept. Thanks to Mister Fantastic, the costume was removed by sonic blasts, and captured. It escaped, still emotionally dependant on Spider-Man and reattached itself. Spider-Man forced it off by the loud noise atop the bell-tower of a church (where the alien costume would later attach itself to Eddie Brock forming Venom). [4]

Global Warming in New York

New York Must Prepare for Global Warming, Mayor's Panel Says

Published: February 17, 2009

New York City must prepare for higher temperatures, more rain and an increased risk of coastal flooding in the coming decades as a result of global climate change, an advisory panel said on Tuesday.

4 http://marvel.com/universe/Spider-Man_%28Peter_Parker%29

The panel, formed by Mayor Michael R. Bloomberg to study the potential effects of global warming on the city, said that mean annual temperatures in New York could increase by up to 3 degrees and the average sea levels rise by 2 to 5 inches by the 2020s. By the 2080s, temperatures could increase by up to 7 ½ degrees, and sea levels could rise 12 to 23 inches by the end of the century, the panel said.

Cynthia Rosenzweig, a senior research scientist at the Goddard Institute for Space Studies at Columbia University, who is the chairwoman of the panel, acknowledged that it was difficult to make predictions about the effects of climate change on specific regions and that climate models that attempt to do so carried uncertainties.

But Dr. Rosenzweig said that the main value of the panel's research, which used climate models and local climate data, was to identify risks in order to make the city less vulnerable to them. "We're providing the science by which the City of New York can get ready and prepare," she said.

City officials said that to prepare for the expected effects of climate change, the city should plan to keep cooling centers for people without air-conditioning open longer during heat waves, move critical equipment in city buildings above sea level and incorporate climate changes into the design of buildings, among other measures.

Higher temperatures could mean more brownouts and blackouts in the summer because of heavier electricity use on hot days, panel members said, and more flooding of streets and basements from intense rainstorms.

The panel, made up of scientists and representatives of private companies, presented its findings at a news conference on Tuesday at the Rockaway Wastewater Treatment Plant in Queens, where the Department of Environmental Protection is moving electrical equipment like pump motors and circuit breakers to 14 feet above sea level from 25 feet below sea level.

The issue of how to prepare for uncertain climate changes now goes to a second task force, made up of representatives of public agencies and private companies. That task force is expected to issue its report later this year as part of the timetable set by Mr. Bloomberg in his environmental agenda for New York City.

"Planning for climate change today is less expensive than rebuilding an entire network after the catastrophe," the mayor said in response to the report. "We cannot wait until after our infrastructure has been compromised to begin to plan for the effects of climate change now."

Rohit T. Aggarwala, the director of long-term planning and sustainability in the Mayor's Office of Operations, said that the city's economic crisis should not interfere with preparations for climate change. Much of the financial burden will be shouldered by private companies as they take steps to prepare, and other expenses can be built into the city's budget for capital projects, he said. "You just build it into the way you do business." [5]

Skyfarming

A Columbia professor believes that converting skyscrapers into crop farms could help reduce global warming and make New York cleaner. It's a vision straight out of *Futurama*—but here's how it might work.

Urban farming has always been a slightly quixotic endeavor. From the small animal farm that was perched on the roof of the Upper West Side's Ansonia apartment building in the early 1900s (fresh eggs delivered by bellhop!) to community gardens threatened by real-estate development, the dream of preserving a little of the country in the city is a utopian one. But nobody has ever dreamed as big

5 http://www.nytimes.com/2009/02/18/science/earth/18climate.html

as Dr. Dickson Despommier, a professor of environmental sciences and microbiology at Columbia University, who believes that "vertical farm" skyscrapers could help fight global warming. Imagine a cluster of 30-story towers on Governors Island or in Hudson Yards producing fruit, vegetables, and grains while also generating clean energy and purifying wastewater. Roughly 150 such buildings, Despommier estimates, could feed the entire city of New York for a year. Using current green building systems, a vertical farm could be self-sustaining and even produce a net output of clean water and energy.

Despommier began developing the vertical-farming concept six years ago (his research can be found at verticalfarm .com), and he has been contacted by scientists and venture capitalists from the Netherlands to Dubai who are interested in establishing a Center for Urban Sustainable Agriculture, either independently or within Columbia. He estimates it could take a working group of agricultural economists, architects, engineers, agronomists, and urban planners five to ten years to figure out how to marry high-tech agricultural practices with the latest sustainable building technology.

What does this have to do with climate change? The professor believes that only by allowing significant portions of the Earth's farmland to return to forest do we have a real chance of stabilizing climate and weather patterns. Merely reducing energy consumption—the centerpiece of the proposal Al Gore recently presented to Congress—will at best slow global warming. Allowing forests to regrow where crops are now cultivated, he believes, would reduce carbon dioxide in the atmosphere as least as much as more-efficient energy consumption.

There is another reason to develop indoor farming: exploding population growth. By 2050, demographers estimate there will be an additional 3 billion people (a global total of 9.2 billion). If current farming practices are maintained, extra landmass as large as Brazil would have to be cultivated to feed them. Yet nearly all the land that can produce food is already being farmed—even without accounting for the possibility of losing more to rising sea levels and climate change (which could turn arable land into dust bowls).

Depending on the crops being grown, a single vertical farm could allow thousands of farmland acres to be permanently reforested. For the moment, these calculations remain highly speculative, but a real-life example offers a clue: After a strawberry farm in Florida was wiped out by Hurricane Andrew, the owners built a hydroponic farm. By growing strawberries indoors and stacking layers on top of each other, they now produce on one acre of land what used to require 30 acres.

Why build vertical farms in cities? Growing crops in a controlled environment has benefits: no animals to transfer disease through untreated waste; no massive crop failures as a result of weather-related disasters; less likelihood of genetically modified "rogue" strains entering the "natural" plant world. All food could be grown organically, without herbicides, pesticides, or fertilizers, eliminating agricultural runoff. And 80 percent of the world's population will be living in urban areas by 2050. Cities already have the density and infrastructure needed to support vertical farms, and super-green skyscrapers could supply not just food but energy, creating a truly self-sustaining environment.

Like the Biosphere 2 project in Arizona, a real vertical farm will probably require a utopian philanthropist with deep pockets. In the eighties, Edward Bass spent $200 million of his own money to construct the Biosphere. A smaller and less complex vertical farm would probably cost that much to build today and could be funded by someone from a country where arable land is already in short supply, such as Japan, Iceland, or more likely Dubai. Despommier is convinced the first vertical farm will exist within fifteen years—and the irony is, oil money could very well build it.[6]

6 http://nymag.com/news/features/30020/