Journey of a Device:

Versatile Action Cameras

Rhea Mae V. Edwards

Instructions ~ part 1

1. **For each slide, synthesize your research and write in complete sentences in essay format using 14pt type.**
   a. Write about each question provided in the Notes below each slide.
   b. Add additional slides if you need more room.
   c. If an area doesn't seem to fit your topic, then broaden your research to include similar devices or devices that use this device.
      i. When in doubt, write the instructor for clarification using the Canvas Inbox.
   d. Cite sources by using hyperlinks in the Titles of the Article and Titles of Laws. See the example on the Writing Requirements page.

2. **Add at least one piece of media that provides additional information:**
   a. Using the Insert menu above, add a video, chart, infographic, or diagram to support what you're writing about (not logos).
   b. Cite media with copyright statements: © year Owner Name.
   c. Hyperlink the copyright statement so we can view to the movie in a new tab. (Google PDF files do not allow viewing of the movie.)

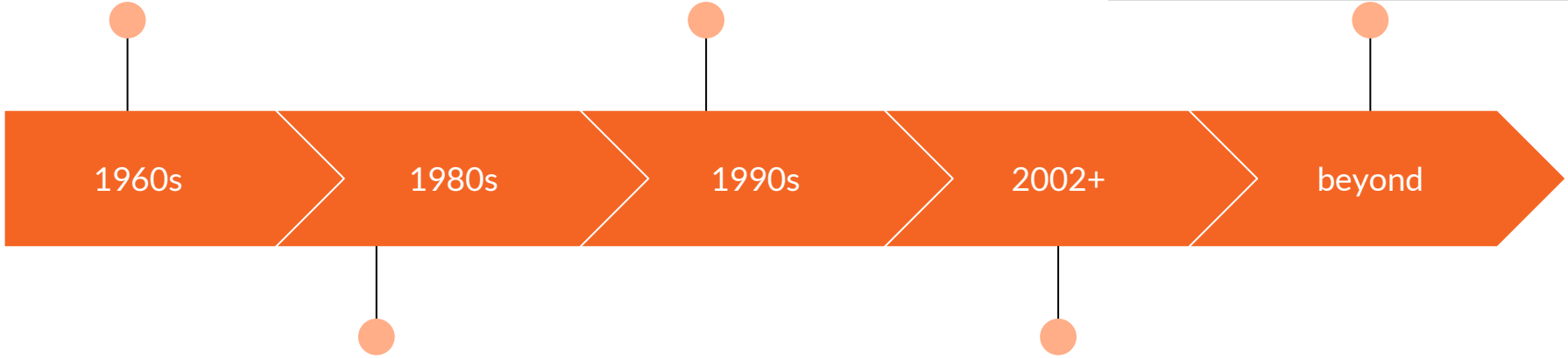
3. **Add all sources to the Bibliography page.**
   a. Include author, title, publisher, date, and URL.

Historical Timeline

The beginnings of actions cameras were mainly just homemade, do-it-yourself projects, that usually consisted of individuals attaching a camera to a helmet and then record video through that way while performing a variety of physical activities.

As another way "to capture first person view video[s]," an American sports company named Riddel, attempted to create an action camera through the eyes of a football player.

Note to Reader:
Most of the information stated on this page has been found through the article "History and evolution of action cameras".



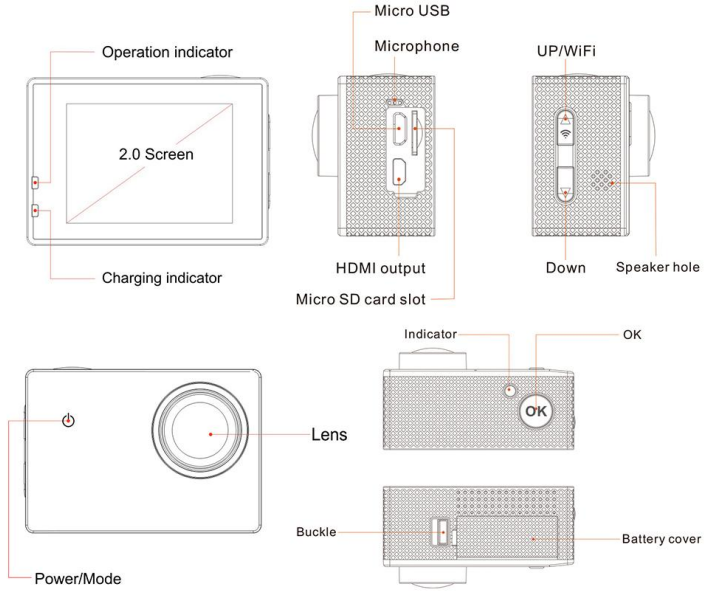
Companies, inventors, and individuals started to focus on their development in an actually action camera, failing and succeeding along the way. The company Canon, attempted but could not quite figure out how to successfully construct such a device.

Also known as the GoPro Era, a founder of the company, Nicholas Woodman, helped introduce a "rugged and waterproof" version of an action camera. Till this day, GoPro overpowers the industry with their products, as they continue to improve on their design and software of their products in order to make "the world's most versatile cameras" overall stated on their "About Us" webpage.

Design

In the early beginnings of action cameras, any adventurous type of individuals would put together their own version of action cameras, and as the decades went by, a variety of companies decided to develop their own profitable version of an action camera. But it was not actually till the early 2000s when an individual named Nicolas Woodman first designed the action cameras that we know of today through the company that is now called GoPro. Today, a mixture of teams and companies work on creating greater and their own unique developments of an action camera.

Reported by the article "2015 Action Camera Comparison Guide", basic features of an action camera include being dimensionally small, light weight, preferably water-resistant, contains a lens, an adequate sensor size, having a monitor, being wireless, ability to store media and battery life, and being able to perform various video recordings and styles.



According to a question asked on GroPro's website stating "What Video Format do GoPro Cameras Record in?", the main video format that their action cameras record with is "the h.264 codec and the MP4 file type." Also, the type of software that their products use varies. There is also many open source software available to use on their cameras that can be displayed throughout GoPro's given list of "Open Source Software".

Intellectual Property

According to the Justia Corporate Center, under their section of patents titled "Patents by Assignee GoPro, Inc.", the company GoPro which has the majority of today's business with action cameras, holds many patents to their name. A few that are described are the "Camera system transmission in bandwidth constrained environments", "Swivel wrist mount", "Camera system and housing with wireless surface indicators", and "Target-less auto-alignment of image sensors in a multi-camera system".

On GoPro's website, includes a web page stating their "GoPro Trademark & Brand Policy". Towards the beginning of the policy, it is describe how important it is that the GoPro logo, spelling, and naming use should be accurate and not be violated in any way. Having this in order to realize the authenticity of their product, and most importantly your own personal versatile action camera. Then at the end of the policy document, it states that an additional accessories for their products should be properly used, and if in use, correctly displayed at a GoPro product, not only just the action cameras.

On GoPro's website, includes a web page stating their "Notice of Copyright Infringement", stating their copyright agreement and consequences in the violation of it.

Manufacturing

How are action cameras manufactured…

Implied by the article titled "The Best Action Cameras of 2016", companies such as Yi Technology, Garmin, Sony, TomTom, Sony, GoPro, and Sioeye take a part in manufacturing versatile action cameras throughout the world.

Manufacturing Laws (name, describe, cite) that relate to actions cameras…

Note work done by humans versus robots during manufacturing…

Raw Materials

Raw and precious materials in action cameras…

- Laws govern mining and production (name, describe)

Major e-waste recycling companies (name, describe)...

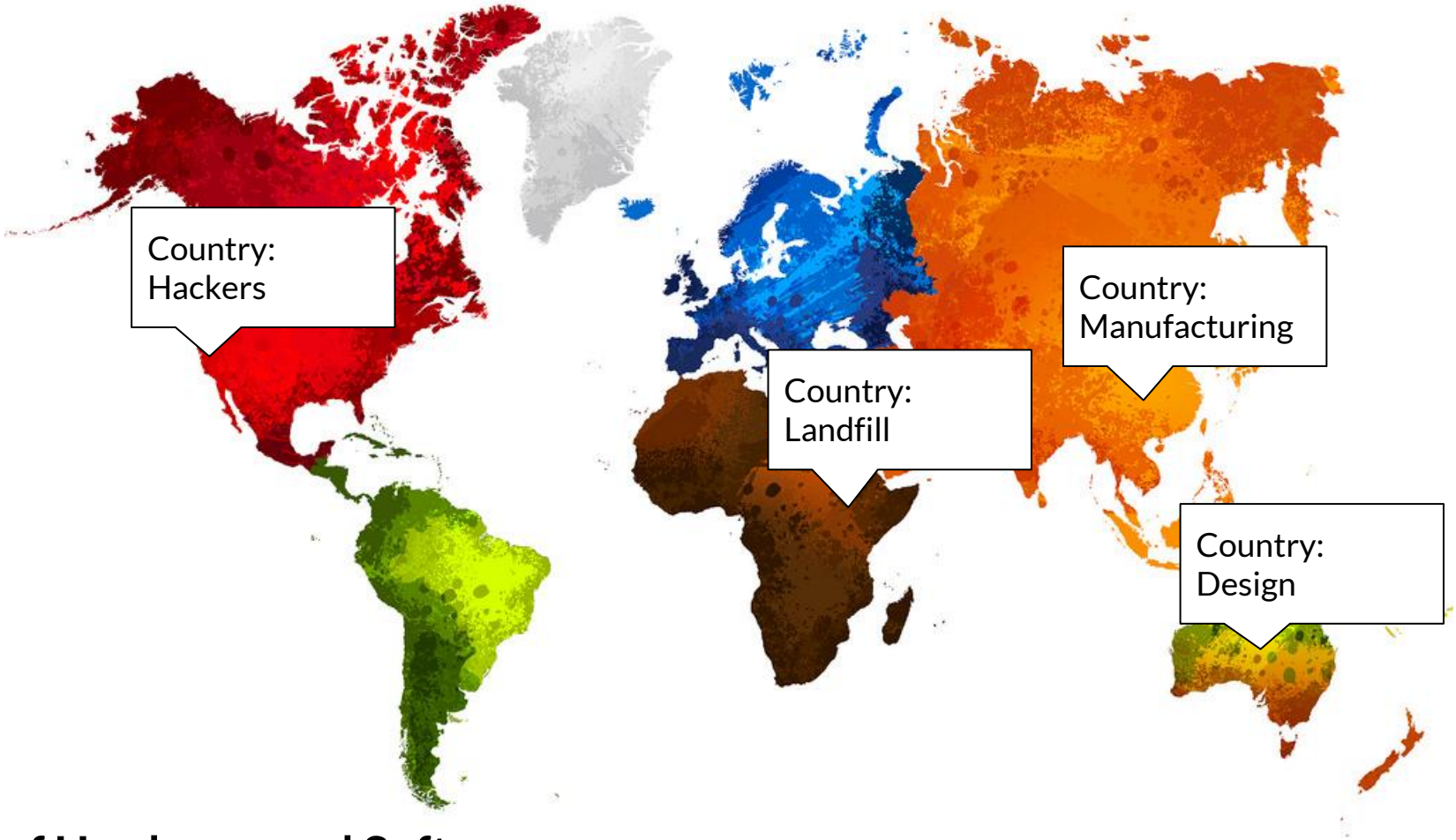
Note where action camera might ends up based off what they are made of…

User Privacy & Security

Major privacy and security issues important for action cameras (describe)...

Law protect privacy and security of users (name, describe, cite)...

Discuss concepts in relation to hacking/being unlawful to users/owners of action cameras…



Map of Hardware and Software

Citation Style: IEEE

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Instructions ~ part 2

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Take your device on a journey

Versatile action cameras being used on an oceanic island.

One of the main purposes of a versatile action camera is that they are able to be used in a variety of extreme situations and conditions, meaning that such a device would operate pretty well in many locations, as well as on an oceanic island.

Oceanic islands can inhabit terrain along the lines of dense green foliage, such as certain types of trees and bushes, sandy and rocky grounds, and moist and salty air conditions. There are usually not much land covered with an oceanic island, but due to the make and structure of a versatile action camera, I believe such a device would operate and do pretty well and just fine in such a location.

Locals on an oceanic island may use a versatile action camera to record adventurous moments, capture native life throughout the island, and maybe even take pictures and videos and beauty of nature around them.

Some adventurous experiences could include hiking through the island's terrain, or scuba diving under the water aside fish and many other aquatic wildlife. Whereas capturing moments such as fishing from the shores or in a boat along the ocean's waters, and cooking over a fire can be moments of native living throughout the island. Also the views from the peak of a hill or mountain being more inland on an island can be a sight that one may never want to forget, or remembering the vast horizon where the sun sets and rises along the ocean can be cherished with the use of an action camera by the locals who would use it.

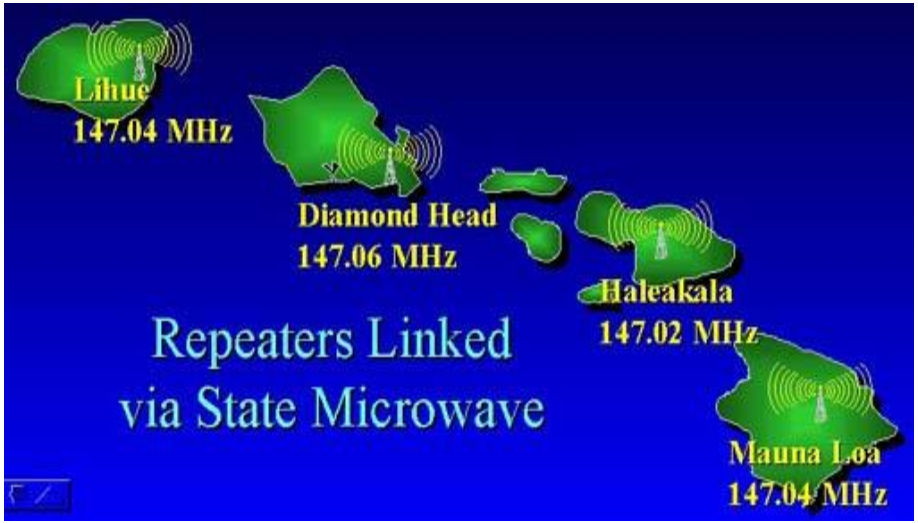
Light, Air, and Space

Organizations that control access on an oceanic island:

- ★ Sky Space
- ★ Light Waves
- ★ Air Waves

Laws that control different forms of communication on an oceanic island:

- ★ Radio Frequency
- ★ Wireless Fidelity (Wi-FI)
- ★ Communications Satellite
- ★ Fiber Optic Cable



Usually on an oceanic island, there is a limit on speeds and ranges of radio frequency, wireless fidelity, communication satellites, and fiber optic cable. Mainly due the the normally smaller size of an island, the amount of possible usable land is limited in order to run such connection like with fiber optic cables that provides connections to the internet and other network services. Also because of an oceanic island location, providing a sufficient wireless and/or satellite connection to the island can be different and not fairly common among all of the islands globally. The terrain of an oceanic island is fairly complex and not very simple when it come to laying out technical connections.

Energy

Infrastructures that support telecommunications on an oceanic island:

- ★ Underwater Internet Cables
- ★ Electrical Power Grid
- ★ Cellular Network
- ★ Landline Network

Builders of Capital

Corporations that dole out access to services on an oceanic island:

- ★ Phone Service
- ★ Internet Service
- ★ Cable Service
- ★ Satellite Service

Cost for services for individual users

Profits corporations make

Neutrality

Laws that govern “access to information” on an oceanic island:

- ★ Searching for information about historical events

Oceanic island *dealt* with the following:

- ★ Censorship
- ★ Digital Divide
- ★ Mobile Justice

On an oceanic island, there can be a strong sense of the idea of the digital divide. Due to the small size of an island, and the limited amount of the people that can inhabit an island, there is not much room for diversity among an island’s locals. For example, when the majority of inhabitants on an island may not rely greatly on the need for technology, that will prosper through life without it.

The lack of use of technology would be a concept considered to be a part of the digital divide. Since such society does not make a great amount of technology useful for them, illustrates signs with being on the lower end of the digital divide. In such case, may not be a negative situation, but is considered different to, for example, a first-world country.

Disruptive

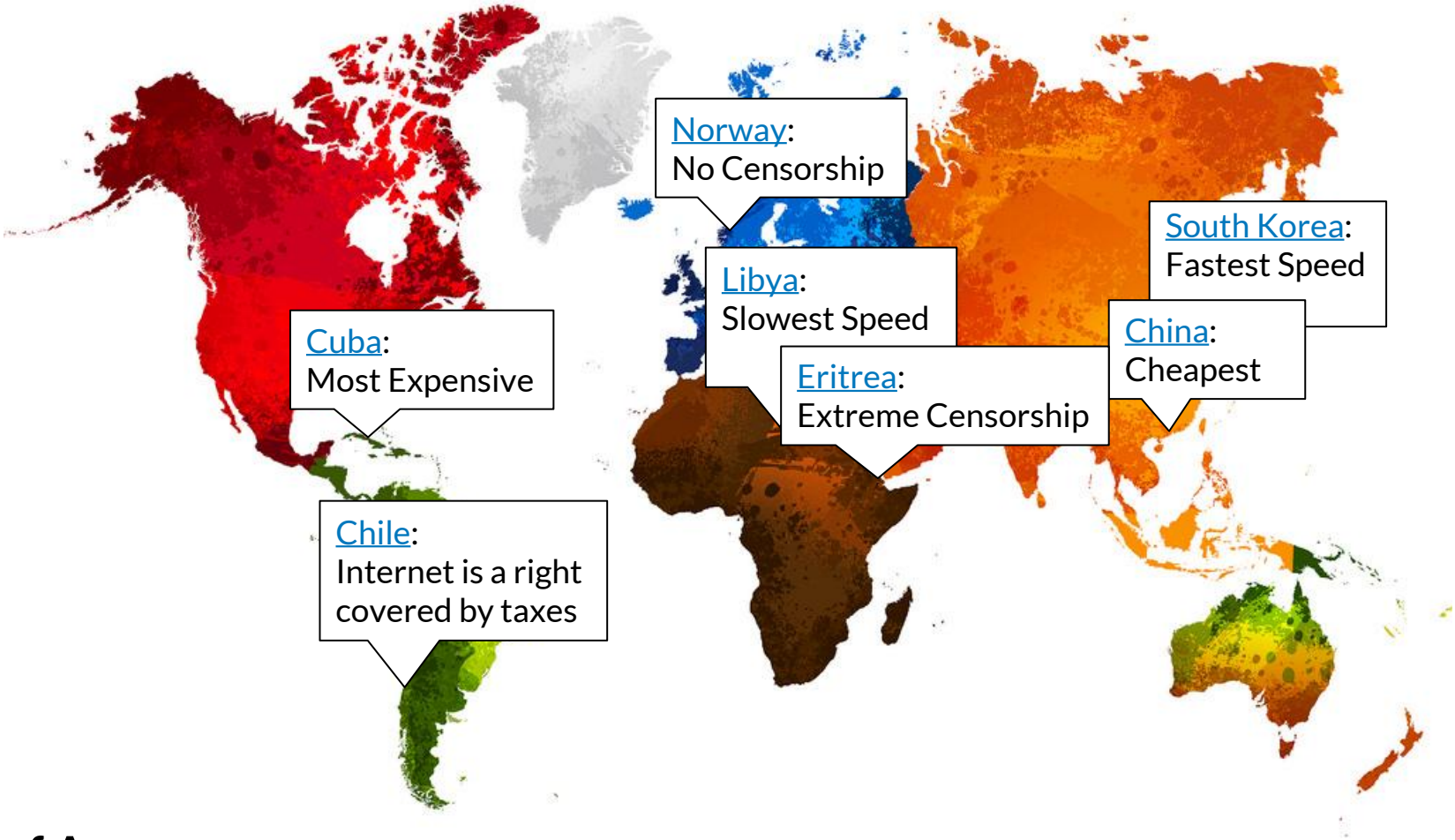
According to the article titled "Seven ways technology is changing the travel industry" posted by Medium, a hand full of "technological developments are challenging, changing, and disrupting the Travel & Tourism industry now," and the technical device of versatile action cameras would be considered to fall into such a category. Action camera do have a great effect when it comes to the travelling and exploration of its users.

In the positive sense, versatile action camera gives the ability for the user to capture and record moments that they would not want to forget while travelling to infrequent visited places around the world, or simply the experience of any unforgettable times the user may across rarely in life.

Also, business wise, action cameras are continually increasing in popularity in society today. There is a corresponding benefit that provides a growing profit for companies that manufacture and sell action cameras, along with the consumer satisfaction well met, especially with such technology continues to improve.

Vice versa, negative effects that versatile action cameras have on society is that they can intrude on people's privacy. Some cameras are small enough in that they can be used to record other people without their permission, or illegally in capturing moments that may not be permitted to be recorded by others.

Action cameras are considered a type of camera, and misusing such a piece of technology is simply possibly and can be used in unfortunate situations.



Map of Access

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