

‘Single Purpose Device’ vs. ‘Multiple Purpose Device’

Informative Research Article

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*“An iPod, a phone, and an internet communicator.
An iPod, a phone... are you getting it?
These are not three separate devices. This is one device.”*

-Steve Jobs, unveiling the iPhone on January 9, 2007

“I started using a Kindle years ago when I was living in Thailand where English language books were hard to come-by and expensive when you could find them. I like the old model, the one they stopped making, the one that doesn't have a touch screen and isn't backlit. The only thing you can do with it is read. I'm typing this on an Alphasmart Neo, a word-processor that has a very small screen and doesn't connect to the internet. The only thing you can do on it is type. I'm a bad speller, so when I'm at a cafe writing in my journal, I carry a Franklin electronic dictionary. The only thing you can do with it is look-up words. When I want to take photos, I use a Fujifilm X-T2. The only thing you can do with it is take photos. The thing is, I could replace all these devices with an iPhone, but I don't because none of these devices require my attention. There are no lights, no sounds. They do the one thing I bought them for and they sit quietly where I left them until I make the conscious decision to return to them.”

- Brad West [5]

Introduction

What is a Single Purpose Device? What is a Multiple Purpose Device? What are their differences? What are their similarities? What are real-world examples of each? This paper will be an informative research article with the goal of answering these questions over several sections.

This paper is intended to be an informative research article, meaning the topics discussed are presented to the reader with no intended persuasion or definitive statements that should be held as fully and completely true. The topics discussed are based on the authors knowledge, experiences, real-world examples, and research from cited sources. It is up to the reader to take away what they have learned from this article and apply it to themselves.

Goals for the Reader

By the end of this article the reader should:

1. Have a general understanding of what the author is trying to articulate
2. Identify the difference between a single purpose device and multiple purpose device
3. Be able to use the knowledge gained from this article to identify examples of single purpose devices and multiple purpose devices in everyday life
4. Promote the understanding of this concept to other individuals by explaining when a single purpose device may be better suited over a multiple purpose device or vice versa

Diction Process

How and why did the author choose the the phrases “single purpose device” and “multiple purpose device”?

Preface, I will use the word “phrase” (or “phrases”) to describe the grouping of words “Single Purpose Device” or “Multiple Purpose Device.” These groupings of words, or phrases, should be thought of as the names of the theories I am trying to articulate to you as the reader.

“Single Purpose Device” or “Multiple Purpose Device” as a phrase are the brands or buzz words that the author landed on when planning and doing his research.

The process to decide on the phrases “Single Purpose Device” and “Multiple Purpose Device” was as follows:

1. The author constructed a template for what should be in each phrase to capture the essence.
<compound adjective describing both the number of nouns and state of being of the noun> <noun to capture the overall format>
2. The author brainstormed vocabulary that would capture each segment of the phrase
 1. For the first part of the compound adjective describing both the number of nouns and state of being of the noun, the choices were:
 - Mono
 - Uni
 - Single
 - Multi
 - Poly
 2. For the second part of the compound adjective describing both the number of nouns and state of being of the noun, the choices were:
 - Purpose
 - Functional
 3. For the third part of the noun to capture the overall format, the choices were:
 - Technology
 - Device
 - Mechanism
 - Gadget
 - Design
3. A group of individuals were shown these words as a group and the words were displayed in different groupings to make up phrases (such as mono-

functional gadget or poly-functional technology). Their feedback was recorded and majority of the discussion narrowed down the choices surrounding single/multiple purpose device.

Although, other phrases could have been used, single purpose device and multiple purpose device seemed to capture what the author was trying to articulate the best. If an individual hears the phrase single purpose device or multiple purpose device they are able to picture what kind of device the author is trying to describe. The reader will also most likely be able to give an example of a single purpose device or multiple purpose device after hearing either phrase, which is the ultimate goal of the author.

The authors decision to use these phrases was further confirmed after seeing articles and videos online that use similar phrases. These articles and videos will be cited at the end of this article.

Single Purpose Device

Definition

A single purpose device is a single object that holds a single function.

“A single-purpose device is a device that serves only one purpose of function.”

[2]

Use Cases

It was created to fulfill a single need. It has one sole purpose when in use. It allows the user to perform a single task. The benefit of a single purpose device is its straightforward ease of use and simplicity. Rather than having multiple functions, a single purpose device allows a user to focus on one function to fulfill their task.

Examples

- Film Camera (not a digital camera)
 - Its only function is to take a photograph
- Telephone (not a smart phone)
 - Its only function is to make phone calls
- Radio
 - Its only purpose is to listen to AM/FM broadcasts
- Ruler
 - Its only purpose is to measure increments in imperial or metric units
- Analog alarm clocks
- Distraction-free writing devices

Pros

- With one purpose there is only one action that can be taken while using the device
- Simplified user experience
- Reduced functionality limits possible error while using the device
- “And might find a greater sense of immersion in nature and the present.” [7]
- “As a person who loves photography, I cherish those moments when I’m lost in the streets with my camera in a meditative state with nothing on my mind. I do not get the same feeling while shooting with a smartphone camera.” [2]
- “They each do one thing, and do it well.” [4]

Cons

- A user may have to carry multiple single purpose devices with them to fulfill the needs that all those devices accomplish rather than carrying a multiple purpose device.

Multiple Purpose Device

Definition

A multiple purpose device is a single object that holds many functions.

Use Cases

It combines aspects from multiple single purpose devices into a single object. It gives the user the ability to complete multiple tasks or objectives all with the assistance, portability, and form-factor of a single object.

Examples

- Smart phone
 - It is able to take a photo (like a camera), make a phone call (like a telephone), or browse the web (like an internet browser)
 - “The majority [of these single-purpose devices] were replaced with the introduction of smartphones.” [2]
- Swiss Army knife
 - It has a variety of attachments that allow it to perform multiple tasks such as cut (blade), tighten/loosen (screwdriver), pinch (pliers), etc.
- Computer
 - Ability to connect to the internet, send emails, print documents, edit photos, create movies.

Pros

- A user only has to worry about a single device to remember
- In many cases a multiple purpose device is delivered in a small form-factor or at a very minimum, it takes up less space and is less weight than that of the single purpose devices it is replacing

Cons

- Notifications can be very distracting
- “Your phone might reach out and distract you when you don’t want that to happen” [7]
- “Using a multi-purpose device comes with some real downsides in terms of mindfulness, focus, and productivity.” [7]
- “We are simply too connected, and have too much access to information to stay sane anymore.” [4]
- Continuous updates to software-based multiple purpose devices make ease of use harder due to the need to learn the new software with every update that comes out.

Real-World Scenario

Scenario 1: A modern day individual may carry a smart phone with them. This smart phone can accomplish majority of the common tasks a user requires on a daily basis. For example, the smart phone has the capability to replace a users need to carry a telephone or cell phone, radio or music playing device, web browser or laptop computer, wallet, and even keys if the user has a digital access key for their home and car. In this scenario the smart phone is the users all-in-one multiple purpose device.

Scenario 2: An individual may carry a cellphone for making calls or texting someone, a wallet for money and credit cards, keys for their house and car, a camera for taking photos, an iPod for listening to music, and a notepad for taking notes.

Neither individual is wrong in their choices. Each individual uses the type of devices they chose to use based on their preference. It depends on the end user to decide if a single purpose device or multiple purpose device is right for them. And perhaps an individual might enjoy both types of devices at different times. Some people love the look and feel of film photography, but still use a smart phone to take photos in their day-to-day lives.

Some people love the sound a record makes on a record player, but still use an iPod, mp3 player, or stream music when they travel.

Not Necessarily Digital vs. Analog or Electronic vs. Mechanical Technology

When most people think of the comparison between single purpose devices and multiple purpose devices, they tend to think of single purpose devices as more analog or mechanical, whereas multiple purpose devices are typically thought of as more digital or electronic. Many people may say a single purpose device is something that doesn't rely on screens or apps and a multiple purpose device does rely on screens or apps. This is not necessarily true. The difference between single purpose devices and multiple purpose devices is not whether or not one runs on electricity or not. The difference is how the user interacts with the device and how many functions the object has the ability to accomplish.

For example, a notepad is a single purpose device whereas an e-writer is also a single purpose device. Although one is physical and does not rely on electricity and one does, they are both considered single purpose devices because they both only serve the purpose of taking notes on.

A film camera is another example of a non-electronic single purpose device. It is used to capture photographs and that is it. It does not require electricity to work. Everything about it is mechanical. There are some film cameras today that have electronics on it, but for the purpose of taking photos, the camera does not require electricity.

Books are physical whereas a Kindle e-reader is digital, but both are single purpose devices. It's not about being digital or not, that makes something a single purpose device or not.

On the flip side of this argument there are also multiple purpose devices that are not digital or electronic such as a Swiss Army knife.

The point trying to be made is that single purpose devices are not solely single purpose because they are not digital or electronic. There are plenty of examples of single purpose devices that are electronic or mechanical.

Ease of Use

Can the argument be made that a single purpose device is easier to use? By limiting its functionality, it limits what you can do with the device and therefore should make the device easier to use. This is not always the case. Sometimes a single purpose device can have a complicated design that confuses the user and makes the device's use harder to understand.

It may be believed that a multiple purpose device has to be more complicated and therefore harder to use. With all the features it has, it must make for a very complicated device to interact with. But if you gave a young person an iPad (a multiple purpose device) and a film camera (a single purpose device), they may find the iPad easier to use. It is what is familiar to them, because they grew up with the iPad instead of the film camera.

Just because a device is single purpose does not make it easier to use. To the average person, this can most likely be said. But there are outliers. Just as a multiple purpose device may seem like the harder to use device, they may actually be the easier to use device. The teams that work on building these devices strive to make them user friendly to the general population so they sell more of those devices.

“It adds many things I don't want in my life and very few things I do.” [5]

“I wanted to spend time with friends, I wanted to spend time reading, I wanted to spend time walking in the park. A phone wasn't getting me any of the things I wanted; in fact, it was distracting me from them.” [5]

“If you don't decide how to spend your time, your devices will choose for you.” [5]

One of the biggest concerns of a multiple purpose device in modern times is the amount of clutter and notifications that typically come with it. For example, your smart phone is a great multiple purpose device that easily gives you access to user-friendly applications, but that device also sends you notifications as events take place which can lead to over-stimulation, confusion, and a frustrating experience if you are trying to focus on accomplishing a certain task without having pop-up notifications disrupt you.

Conclusion

After reading this article, my hope is that you learned enough about single purpose devices and multiple purpose devices to articulate those learnings to other people. You should now be able to identify what a single purpose device is as well as examples of these types of devices. This can also be said about multiple purpose devices. In the end, I hope you found this article informative.

Thank you for your time.

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