

Using Any Old Power Supply

Harking back to the earlier point about cables and peripherals, it is very important to use a power supply with the correct specification. Though the Raspberry Pi itself won't draw more than 1 amp while under load, it's recommended to use a quality 2.5 amp power supply, especially when using USB peripherals. If the USB cable you're using isn't capable of carrying this reliably, or the mains adaptor is insufficient (or poorly constructed and therefore inefficient), then your Pi may not run correctly. Perhaps it won't even boot. Corrupt SD cards are likely, as is slow, sluggish or non-existent performance.

Whether you're using a mains electricity supply or one provided by a battery or other portable power solution, ensure that it — and the cable — meets the requirement for your Raspberry Pi model. This way you can be confident that your Pi will be stable throughout the current project. If you're going to use power hungry USB peripherals, you may also need to connect them via a powered USB hub, rather than powering them through the Pi's ports.

As you can see, there are a few steps you need to take to ensure successful operation on your Raspberry Pi. Just remember that while this is a low cost computer, it should not be treated as such. Don't buy cheap hardware, make sure it has the power it needs, and treat it with respect.



NEW HORIZON COLLEGE OF ENGINEERING



INTERNET OF THINGS AND ARTIFICIAL INTELLIGENCE



DEPARTMENT OF COMPUTER SCIENCE ENGINEERING

IOTA / Q3 / MAR 2016



A Virtual Archive for the History of AI



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As a scientific society, AAAI has a stated responsibility to disseminate accurate information about AI and promote accurate views of the field.¹ Because historians will construct their stories from the primary source material they can find, it follows that AAAI has a responsibility to help preserve the publications that have defined the field.

For this reason, the Strategic plan for AAAI (AAAI 2008) includes the clause, "Preserve the history of the field, including such tasks as archiving AI materials."² The AI Topics website² was set up in part to meet these responsibilities (Buchanan and Glick 2001).

In addition to being a digital archive, the website also aims to be a broad source of introductory readings, news, podcasts, and videos covering the wide range of topics in our field.

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All of the linked material has been previously published in reputable outlets and is reviewed by editors.

This ensures the integrity of the information that is disseminated.

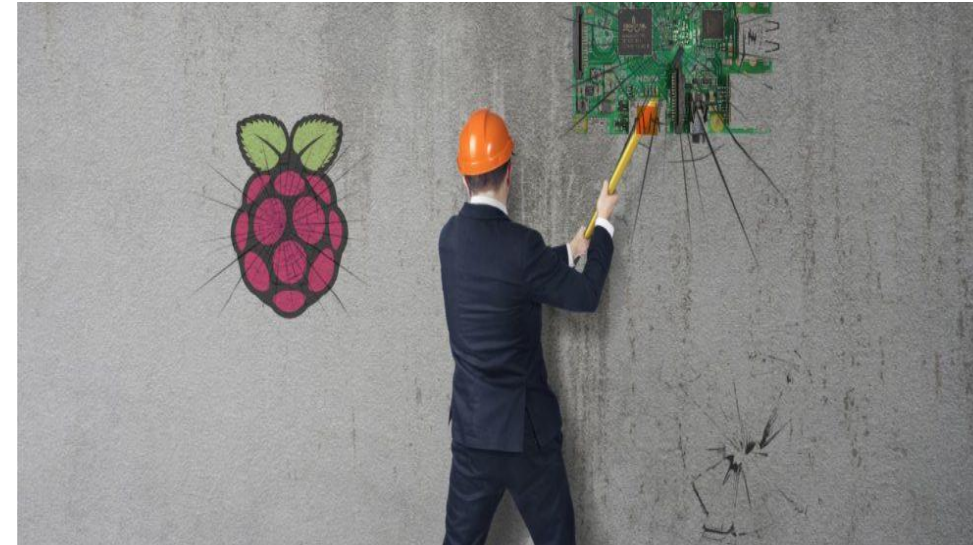
However, we found that much of the older material that helped define the field was previously difficult or impossible to find in digital form. Even in hard copy, some materials could be found only in a few research libraries and personal collections. Much of the historical record of AI is found in text hard copy, videos, and to a small extent, audio tapes and photographs. Demos, interviews, and lectures on videotape supplement the written record.



AAAI is not set up to undertake the expensive, long-term commitment to be an archive of the physical materials themselves. Digitizing may play a part in our efforts, and it is worthwhile in itself (especially for pedagogical purposes), but digitizing is not necessarily archiving. There is a need to coordinate with institutional archives that will preserve material in proper environmental conditions, in perpetuity, which is an expensive, long term commitment. However, the AAAI can maintain a virtual archive so historians can locate original materials easily and researchers can read original materials without traveling to a major library or archive.

Many archivists at university libraries and historical institutions are already preserving the hardcopy publications of individual scientists whose work has been influential in the development of AI. For example, AAAI is shipping hard copies of AAAI Press publications (printed on acid-free paper), including conference, symposia, and workshop proceedings, to the Stanford Archive for long term preservation. Stanford is also preserving papers from John McCarthy, Edward Feigenbaum, Nils Nilsson, and others.

“The association is creating a virtual archive for the history of AI.”



Similarly, low-quality HDMI cables, Bluetooth and Wi-Fi dongles, and Ethernet cables can all prove troublesome. Your best option, therefore, is to seek out and buy good quality gear. You might also opt for a full Raspberry Pi kit, such as this one found on Amazon.

External hardware that you connect to the Pi should be of similar good quality. Things like HATs and peripherals connecting to the GPIO, for instance, should be purchased from reputable suppliers. Check the reviews to make sure you're getting reliable kit!

Choosing the Wrong Distro

Installing a Linux operating system (or “distro”, short for “distribution”) on your microSD card is straightforward, and simpler even than doing the same on a desktop or laptop computer.

But it can be baffling. The sheer scale of options mean that you can easily find yourself installing a distro that is unsuitable for your purposes. Worse still, if you're using some sort of starter guide, the chances are that this will refer to Raspbian, the main Raspberry Pi Linux distribution.

While there are many Linux versions for the Raspberry Pi, we recommend you stick to Raspbian Jessie with the slick PIXEL desktop environment. This can be downloaded free from the Raspberry Pi website. Note that most of our tutorials can be done remotely over an SSH connection. However, the latest Raspbian now disables SSH by default, so you either need to boot with a keyboard and monitor first, then use the config utility to enable it, or after you've burnt the image to the microSD card, simply add a blank file called “ssh” to the boot partition.

However, if you do wish to consider an alternative, look at one of those on offer via the NOOBS installer. This is a tool that simplifies installation considerably, but again, we'd recommend you start off with Raspbian Jessie.

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3 Mistakes Raspberry Pi Beginners Should Avoid

Your Raspberry Pi is awesome, so it would be wrong to not give it the chance it deserves to change your life. Whether this is through the convenience of a compact desktop computer, or low-cost media center, or perhaps some more outlandish project, is up to you.

But if you get it wrong, you'll miss out on the Raspberry Pi experience. That tiny computer will fail to set your world alight with possibilities, with the magic of a low-cost, flexible device.

There are several ways that people misuse their Raspberry Pi and fail to embrace its potential. If you're new to the Raspberry Pi, or considering buying one, make sure you don't make these Raspberry Pi beginner mistakes.

Buying Low-Quality Cables and Cards

A brand new Raspberry Pi costs around \$35, and a Raspberry Pi Zero far less. But if you're buying just the device, you'll also need to splash out on cables and a microSD card. This can prove a stumbling block for many Raspberry Pi beginners.

In short, low-grade microSD cards are a waste of time. Cheap microSD cards are often buggy, prone to corruption, and rarely offer the capacity for storage that they claim. In short, they're a disaster as a medium for installing a reliable operating system.