MALE AND FEMALE MACHINES IN THE PIXELCASH NETWORK

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Unlike any other cryptocurrency on the market, there are two different types of machines needed to support the Pixelcash network. I hinted at this in my original paper on Pixelcash, titled “The Idea of Pixelcash”, but here I will explain it in more detail.

First, there are “male” machines (also called “father units”), which are the conventional mining rigs that everyone is familiar with and that utilize multiple GPU graphics cards to mine new .jpeg images (jpennies), as well as process Pixelcash transactions via the discrete cosine transform (see a demonstration of .jpeg blocks here: https://youtu.be/T_K2OR47lYs) as part of the custom mining algorithm and record all transaction information on the ledger. The use of the term male/father unit in regards to the function of these machines is synonymous with the traditional family dynamic of fathers being the primary workers of a household. This is the main infrastructure of every other proof of work (PoW) cryptocurrency, but for Pixelcash, it is only half of the solution.

Secondly, there are “female” machines (also called “mother units”), which are data centers that simply store the data of each and every jpenny and ultimately make up the cloud itself, these are either small homebuilt rigs which utilize multiple external hard drives connected to a central USB hub plugged into a computer, or large, commercially owned data centers, such as the ones owned by Google, for example. The use of the term female/mother unit in regards to the function of these machines is synonymous with the traditional family dynamic of mothers being the primary caretakers of a household.

So there you have it, Pixelcash can even be compared to human gender roles. Pretty cool, huh?

It is possible that commercially manufactured Pixelcash mining rigs would be simultaneously both male and female, i.e. would contain both mining hardware and data storage hardware within a single frame. A typical PC is an example of such a device already in existence, although due to both computational power and data storage limits, PCs alone and in general would not be recommended for such a use. Both father units and mother units work in conjunction to support the "offspring", which would mean the immense number of jpennies in circulation, and keep the "household", which would mean the Pixelcash network, in working order. The Pixelcash network cannot function properly without an evenly distributed number of father units and mother units working in unison with it.

It is also possible that a specialized web application and/or mobile phone/tablet application may be developed that allows the Pixelcash network to sync with any online cloud storage account, i.e. Google Drive, Microsoft OneDrive, DropBox, etc. and interact with it in the same manner as with the physical external hard drives described above in order to support the network, in effect running a "virtual node". The specific cloud storage account in question would be required to be completely clean before it could be accepted by the network, i.e. it would need to be a new account created specifically for this purpose, and not contain any personal items. The web application would act as its own proxy, requiring that the cloud storage account be created through it via a built in API to ensure this.

However, just like the section of my last paper describing the issues with running the web crawling software that sources the images through a commercial search engine like Google, this once again brings up the issue of having to rely on third parties either allowing or disallowing such activity. In addition, this method of network data storage would also likely be even more at risk of "burning", i.e. loss of Pixelcash units as a result of permanently losing connection with the network, as these online accounts can simply be deleted or frozen at any time and

for any or no reason. For example, Google offers users up to 30 TB of storage space on Drive at a current price of $299.99 per month. If, for whatever reason, the owner of the account were to miss one of these monthly payments (the payments are auto-recurring, but can be declined due to insufficient funds), Google would presumably revert the user's storage space back to the default capacity, which is only 15 GB, and delete all but 15 GB of the data that was being stored in the Drive.

The simple fact that Pixelcash needs such a hardware intensive infrastructure should be ample discouragement to other developers from creating any hard forks or clones of the Pixelcash network; hard forking Pixelcash or creating a clone would be very difficult compared to hard forking or cloning Bitcoin for example, because, at least for a hard fork, they would need the same exact amount of hardware resources (particularly data storage) that would already be in use on the original network, and if they are willing to exploit such resources, they may as well just use them to support the original network.

It is unclear if something such as a hard fork would even be possible or practical in the case of Pixelcash. As stated in my first paper, every single jpenny in the cloud is encrypted by the network and thus non-duplicable. I imagine that, even if the encryption were somehow bypassed, it would involve every single jpenny already present in the original network at the time of the fork being copied and saved on the new network, which, as I already hinted at, would require a massive amount of specially dedicated data storage space, and if the developers of the fork do not have said storage space available, then they simply cannot create their hard fork. This is very much unlike Bitcoin and thousands of other cryptocurrencies that lack this sensation of real world "substance" and can be hard forked or cloned by simply copying their open source code from GitHub and making some small edits. This is another area where Pixelcash is synonymous with paper money; fiat is printed by the federal government and stored in federal institutions, while Pixelcash is mined by the community and stored in the community's data storage, essentially making the people their own banks.