CLAIMS

1. A method for storing content items, the method being implemented by a computer comprising a processor, a primary storage device, a secondary storage device, and a network interface, the method comprising:

receiving, by the primary storage device via the network interface, a plurality of content items responsive to respective requests from clients;

distributing, via the network interface, the plurality of content items from the primary storage device to clients responsive to the respective requests from the clients;

generating, by the processor, a worthiness value for each content item of the plurality of content items, wherein the worthiness value is indicative of a value for writing the respective content item to the secondary storage device compared to other content items of the plurality of content items, and the worthiness value is based on a combination of at least frequency of request, rate of request, and number of times of request for the respective content item;

generating, by the processor, a dynamic priority list for the content items based on the respective requests from the clients over time, based on the generated worthiness values, and based on respective costs of writing the content items to the secondary storage device, wherein the respective costs are based on at least expected degradation of the secondary storage device as a result of writing the content items to the secondary storage device;

writing, by the processor based on the dynamic priority list, only a subset of the content items to the secondary storage device.

2. The method of claim 1, wherein the primary storage device comprises a memory cache, and wherein the secondary storage device comprises a mass storage device.

3. The method of claim 1, wherein the primary storage device receives content items at a first rate, and wherein the secondary storage device receives content items at a second rate that is significantly lower than the first rate.

4. The method of claim 1, further comprising, by the processor, deleting content items from the primary storage device responsive to the respective requests from the clients.

5. The method of claim 1, wherein the processor generates the dynamic priority list based on frequencies at which the clients respectively request the content items.

6. The method of claim 1, wherein the processor generates the dynamic priority list based on numbers of times with which the clients respectively request the content items.

7. The method of claim 1, wherein the processor generates the dynamic priority list based on changes in rates at which the clients respectively request the content items.

8. The method of claim 1, wherein the processor generates the dynamic priority list based on respective costs of receiving the content items via the network interface.

9. The method of claim 1, wherein the processor generates the dynamic priority list based on respective costs of writing the content items to the primary storage device.

10. The method of claim 1, wherein the computer comprises a node of a content delivery network.

11. The method of claim 1, wherein the processor receives the respective requests from the clients and distributes the plurality of content items to the clients responsive to such requests.

12. The method of claim 1, wherein the processor writes the subset of the content items from the primary storage device to the secondary storage device.

13. The method of claim 1, wherein the processor writes the subset of the content items from the network interface to the secondary storage device.

14. The method of claim 14, wherein the processor generates the dynamic priority list based on whether the respective content items are available in the primary storage device.

15. A computer system comprising a processor, a primary storage device, a secondary storage device, and a network interface, the processor being configured to implement operations comprising:

receiving, by the primary storage device via the network interface, a plurality of content items responsive to respective requests from clients;

distributing, via the network interface, the plurality of content items from the primary storage device to clients responsive to the respective requests from the clients;

generating, by the processor, a worthiness value for each content item of the plurality of content items, wherein the worthiness value is indicative of a value for writing the respective content item to the secondary storage device compared to other content items of the plurality of content items, and the worthiness value is based on a combination of at least frequency of request, rate of request, and number of times of request for the respective content item;

generating, by the processor, a dynamic priority list for the content items based on the respective requests from the clients over time, based on the generated worthiness values, and based on respective costs of writing the content items to the secondary storage device, wherein the respective costs are based on at least expected degradation of the secondary storage device as a result of writing the content items to the secondary storage device;

writing, by the processor based on the dynamic priority list, only a subset of the content items to the secondary storage device.