CLAIMS

WHAT IS CLAIMED IS:

1. A method for storing and accessing information, the method comprising:
    a) converting at least one item of information in a form of at least one digital sequence to at least one nucleic acid sequence;
    b) providing a structure comprising a surface;
    c) synthesizing a plurality of polynucleotides having predetermined sequences collectively encoding for the at least one nucleic acid sequence, wherein each polynucleotide extends from the surface;
    d) storing the plurality of polynucleotides; and
    e) selectively transferring the plurality of polynucleotides to a receiving unit, wherein selectively transferring comprises application of electrostatic force, and wherein the plurality of polynucleotides collectively encodes for a single nucleic acid sequence of the at least one nucleic acid sequence.
2. The method of claim 1, wherein selectively transferring the plurality of polynucleotides to the receiving unit further comprises a conducting member, and an applied voltage potential between the structure and the conducting member.
3. The method of claim 1, wherein selectively transferring the plurality of polynucleotides to the receiving unit further comprises a pressure release or pressure nozzle.
4. The method of claim 3, wherein synthesizing the plurality of polynucleotides having predetermined sequences collectively encoding for the at least one nucleic acid sequence further comprises using the pressure nozzle.
5. The method of claim 3, wherein synthesizing the plurality of polynucleotides having predetermined sequences collectively encoding for the at least one nucleic acid sequence further comprises flooding the polynucleotides through the pressure nozzle.
6. The method of claim 3, wherein synthesizing the plurality of polynucleotides having predetermined sequences collectively encoding for the at least one nucleic acid sequence further comprises depositing nucleotides through the pressure nozzle.
7. The method of claim 1, further comprising:

sequencing the plurality of polynucleotides; and

assembling the at least one digital sequence.

8. The method of claim 7, wherein the at least one digital sequence assembled is 100% accurate compared to an initial at least one digital sequence.

9. A method for collection of information, the method comprising:

a) providing a structure comprising a surface, wherein the structure comprises:

a first plurality of polynucleotides having predetermined sequences collectively encoding for at least one nucleic acid sequence; and

a second plurality of polynucleotides having predetermined sequences collectively encoding for the at least one nucleic acid sequence,

wherein the first plurality of polynucleotides and the second plurality of polynucleotides both extend from the surface and both encode for the same at least one nucleic acid sequence;

b) selectively separating a region of the structure comprising the first plurality of polynucleotides and removing the first plurality of polynucleotides from the surface, wherein removing the first plurality of polynucleotides from the surface comprises application of electrostatic force; and

c) sequencing and decrypting the at least one nucleic acid sequence to form at least one digital sequence encoding for an item of information.

10. The method of claim 9, wherein a region of the structure comprising the first plurality of polynucleotides comprises a cluster of channels or wells.

11. The method of claim 9, wherein the structure is a rigid structure.

12. The method of claim 9, wherein the structure is a flexible structure.

13. The method of claim 9, wherein a region of the structure comprising only a remaining portion of the structure lacking the first plurality of polynucleotides is spliced back together.

14. The method of claim 9, wherein removing the first plurality of polynucleotides from the surface further comprises a conducting member, and an applied voltage potential between the structure and the conducting member.

15. The method of claim 9, wherein removing the first plurality of polynucleotides from the surface further comprises a pressure release or pressure nozzle.
16. The method of claim 9, wherein each polynucleotide of the first plurality of nucleotides comprises at most 500 bases in length.
17. The method of claim 9, wherein each polynucleotide of the first plurality of nucleotides comprises at most 200 bases in length.
18. The method of claim 9, wherein each polynucleotide of the second plurality of nucleotides comprises at most 500 bases in length.
19. The method of claim 9, wherein each polynucleotide of the second plurality of nucleotides comprises at most 200 bases in length.
20. The method of claim 9, wherein an amount of the item of information is at least one gigabyte.
21. The method of claim 9, wherein an amount of the item of information is at least one terabyte.
22. The method of claim 9, wherein an amount of the item of information is at least one petabyte.