

Report for Wood's paper: The Feasibility of Magnetic Recording at 10 Terabits Per Square Inch on Conventional Media

Kamoliddin Mavlonov
Graduate School of Science and Engineering
Ehime University
3 Bunkyo-cho Matsuyama Ehime 790-8577, Japan
kamol@koblab.cs.ehime-u.ac.jp

Abstract—This report is purely based on my own comprehension of this paper.

I. INTRODUCTION

In 2000, Wood publishes a paper: The Feasibility of Magnetic Recording at 1 Terabits Per Square Inch [1]. It says, that conventional recording would reach a limit at around 1 Terabit/in².

However, in 2009, he admits [4] the current hard disk drive (HDD) technology is already reaching this limit.

Moreover, the Advanced Storage Technology Consortium (ASTC) [5] released the 2014 roadmap for HDD area density as shown in Fig. 1

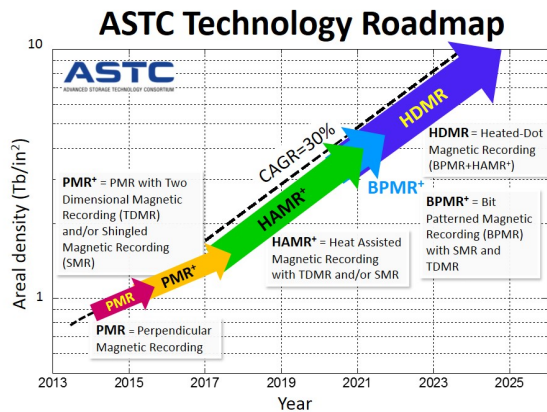


Fig. 1. Data synchronization between two devices

uses perpendicular recording, which already reaching this limit. However, alternative technologies: heat-assisted magnetic recording (HAMR) [2] and bit patterned media (BPM) [3]

A. Subsection Heading Here

Subsection text here.

1) Subsubsection Heading Here: Subsubsection text here.

II. CONCLUSION

The conclusion goes here.

ACKNOWLEDGMENT

The authors would like to thank...

REFERENCES

- [1] R. Wood, *The feasibility of magnetic recording at 1 terabit per square inch*, IEEE Trans. Magn., vol. 36, pp. 3642, Jan. 2000.
- [2] R. Rottmeyer et al., *Heat-assisted magnetic recording*, IEEE Trans. Magn., vol. 42, no. 10, pp. 2417-2421, Oct. 2006.
- [3] B. Terris, T. Thomson, and G. Hu, *Patterned media for future magnetic data storage*, Microsyst. Technol., vol. 13, no. 2, pp. 189-196, Nov. 2006.
- [4] R. Wood, M. Williams, A. Kavcic, J. Miles, *The Feasibility of Magnetic Recording at 10 Terabits Per Square Inch on Conventional Media*, IEEE Trans. Magn., vol. 45, pp. 917-923, Feb. 2009.
- [5] ASTC Technology Roadmap - 2014 v8, http://idema.org/?page_id=416, 2014.