The Evolution of HI from $z=5$ to the Present

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Studies of damped Ly$\alpha$ systems provide us with a good measure of the evolution of the HI column density distribution function and the contribution to the comoving mass density in neutral gas out to redshifts of $z = 5$. The column density distribution function at high redshift steepens for highest column density HI absorbers, though the contribution to the comoving mass density of neutral gas remains flat from $z \sim 2$ to $z \sim 5$. Results from studies at $z < 2$ are finding substantial numbers of damped absorbers identified from MgII absorption, compared to previous blind surveys. These results indicate that the contribution to the comoving mass density in neutral gas may be constant from $z \sim 0$ to $z \sim 5$. We will review the most recent results at high and low redshift and HI surveys at $z = 0$. 
