XML has taken by storm the software industry and the computer science research community, giving rise to a flurry of new technologies such as XML databases, Web Services, and workflow languages. The adoption rate of some of these technologies is spectacular. But have we indeed made significant progress by gluing XML syntax on top of old mechanisms? Have we been blinded by XML tags to the point of forgetting that “syntax” is just the first step towards “semantics”? We look at some of the recent XML based technologies, try to identify their benefits, and highlight some of the many related research and engineering issues still unresolved.