Media accessibility of digital documents containing visual representations by people with visual impairments

Abstract:

Accessing visual information embedded in digital documents is challenging for people with visual impairments. In particular, scientific content, commonly provided through visual representations, is rarely made accessible because the authors often lack tools, incentives and the know-how needed to implement accessibility standards. In some cases, it may not even be possible to exhaustively convey information contained inside visual representations using alternative text captions only.

Zero-effort accessibility aims to support accessible content creation without any additional burden for content authors, using tools that seamlessly integrate with existing document authoring pipeline. This approach has been used to enable people with visual impairments to access mathematical formulae and function graphs inside teaching and scientific material, and future work will explore the creation of accessible video lectures.