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eXtyles®

Editorial and XML
Solutions for Publishers

Industry Updates & Meeting Wrap-up

Bruce Rosenblum
CEO

JATS

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- JATS 1.2d2 is now available
  - Lots of incremental improvements
  - https://groups.niso.org/apps/group_public/download.php/20333/NISO-JATS-1-1-to-1-2.pdf
- JATS 1.2 going to NISO vote late 2018

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BITS/STS

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- BITS 2.0
  - Stable in 2018
  - Growing adoption
- NISO STS 1.0
  - Stable in 2018
  - Growing adoption
  - Moving to NISO Continuous Maintenance (like JATS)

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JATS/BITS/STS Future

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- JATS Compatibility Meta Model
  - https://www.ncbi.nlm.nih.gov/books/NBK425547/
  - https://www.ncbi.nlm.nih.gov/books/NBK425698/
- Goals
  - Thoughtful alignment
  - Thoughtful growth
  - Thoughtful third party customization
- Future Discussion: When might it be ok to break backwards compatibility?
  - Note: No current plans to break backwards compatibility

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New(ish) NISO Projects: JATS4R

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- JATS for Reuse is devoted to optimizing reusability of scholarly content by developing best-practice JATS tagging recommendations
- Proposal to become NISO Recommended Practice
- Learn more: https://jats4r.org/

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New NISO Projects: MECA

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- Manuscript Exchange Common Approach
- Transfer manuscripts and peer review information between platforms (peer review and preprint)
- Key supporters: Aries, Clarivate, eJournalPress, Highwire, PLoS
- Learn more:
  - https://www.manuscriptexchange.org/
  - https://scholarlykitchen.sspnet.org/2018/07/25/guest-post-manuscript-exchange-meca-can-academic-publishing-world-cant/

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Partners

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- No Technology is an Island
- Our job is to stay ahead of technology changes so you can do your job!
- Working with partners:
  - Microsoft
  - PubMed
  - Crossref
  - MathType

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Microsoft

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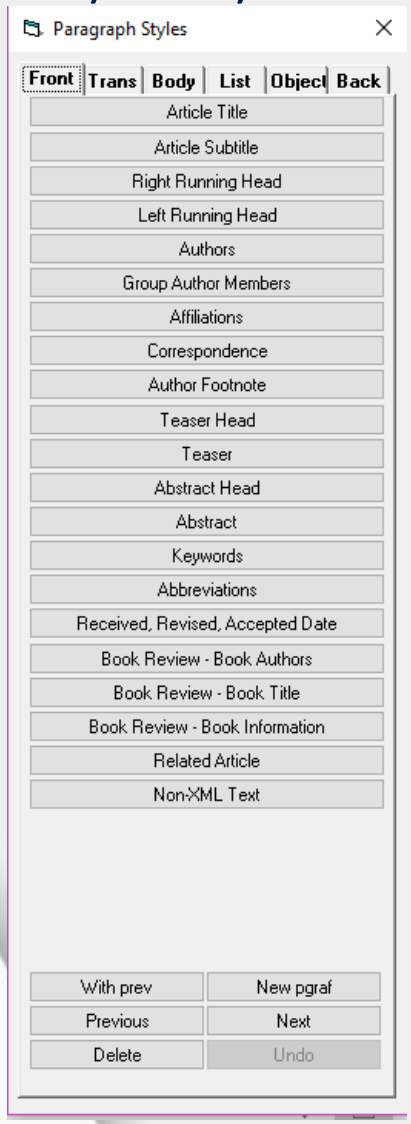
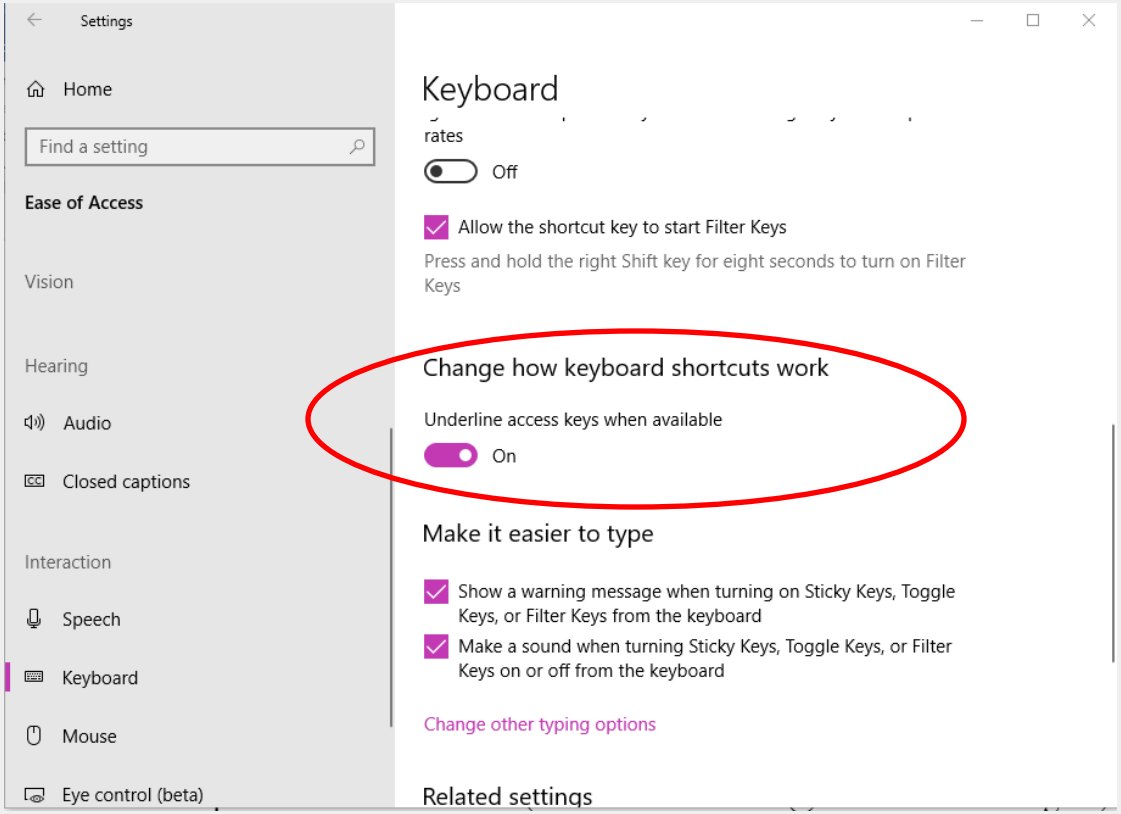
- Mystery of the disappearing hot keys





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PubMed

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- 2016: http → https
- 2018: API Keys
  - Required to query PubMed > 3 queries/sec.
  - eXtyles PubMed rate: ~7 queries/sec.
  - Original go-live: 1 May 2018
  - Actual go-live: 1 December 2018
  - Patches available since mid-September
  - Design at PubMed took several iterations
  - Effects NCBI linking, too
  - Inera investment: >250 person-hours

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Crossref

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- 100,000,000 DOIs
- Crossref Metadata Check
  - Focus on completeness, not quality
  - New emphasis on citations
- Common Crossref metadata errors
  - Incomplete records (no volume, issue, page)
  - Incorrect tagging of article ID
  - Full journal name in <abbrev_title>
  - Incorrect special character encoding

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MathType

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- Purchased by Wiris, September 2017
- Mac version, December 2017
- Windows 7.0, March 2018
- Windows 7.1, April 2018
  - Mostly eXtyles compatible
- Windows 7.3, August 2018
  - Current version: 7.3.1.438
  - Inera in process of full compatibility testing
- Monthly updates

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Unicode 10

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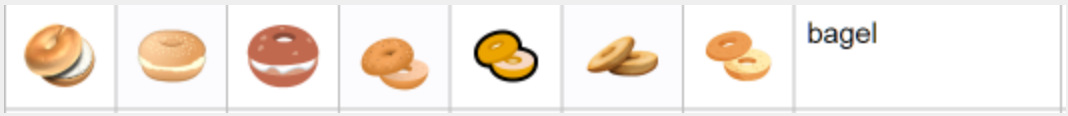
- Released June 5, 2018
  - 684 new characters (including 66 emoji)
  - 137,374 total characters
- Seven new scripts
- Example new emoji



- http://unicode.org/versions/Unicode11.0.0/

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Retraction Database

- Retraction Watch database
  - Searchable database
  - http://retractiondatabase.org/RetractionSearch.aspx?&AspxAutoDetectCookieSupport=1
  - More extensive than PubMed or Crossref
  - >18,000 retracted papers and conference abstracts
- If you are interested in eXtyles querying this database, contact us

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Retraction Data

- Science Article
  - https://www.sciencemag.org/news/2018/10/what-massive-database-retracted-papers-reveals-about-science-publishing-s-death-penalty
- Notable findings
  - Absolute number of annual retractions has grown, but the rate of increase has slowed
  - Much of the rise appears to reflect improved oversight at a growing number of journals
  - Relatively few authors are responsible for a disproportionate number of retractions

Industry Update QuickPoll (1)

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- Who is (still) using?
  - Word 2010 or earlier
  - Windows 7 or 8.x
  - Any NLM DTD before JATS 1.0
  - NLM Book
- Who is currently using?
  - Word 2013
  - Word 2016
  - Windows 10

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Industry Update QuickPoll (2)

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- In 2019, will your organization adopt?
  - JATS 1.2
  - BITS 2.0
  - ORCID
  - CRediT
  - Windows 10
  - Office 2016

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Future Opportunities and Challenges

- Open Access
- Media Literacy and Trust
- Artificial Intelligence

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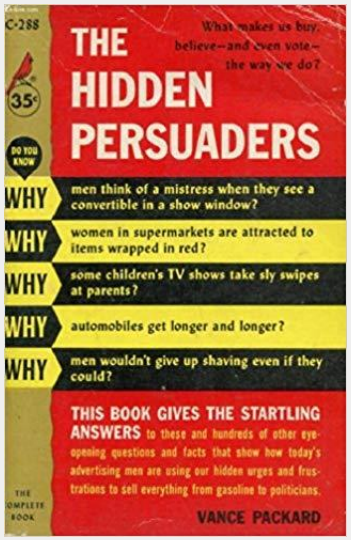
Open Access

- Ever newer public mandates
  - Option “S”
  - California Taxpayer Access to Publicly Funded Research Act
- …bring new approaches
  - 10,000+ hybrid journals
  - “mirror” journals
- …and will bring ongoing challenges
  - Complex multi-party agreements and requirements
  - Migration from subscriptions to open access
  - Predatory publications – Cabell’s Blacklist > 10,000

Media Literacy & Trust

- 1957: Cost to “publish” and “distribute” was expensive
- Only organizations with significant resources could publish to an audience of size



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Media Literacy & Trust

- 2018: Marginal cost to "publish" and "distribute" has gone down
  - Anyone can put up a website
  - Anyone can claim to do peer review
- How do you teach "media literacy"
  - Interpretation
  - Trust
- When information is global, how do you establish trust, especially across cultures?

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AI Hype

- "Working together, we can out-think anything"

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AI Reality

- https://www.technologyreview.com/s/609048/the-seven-deadly-sins-of-ai-predictions/
- "Almost all innovations in robotics and AI take far, far, longer to be really widely deployed than people in the field and outside the field imagine."

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AI Failures

- eXtyles Arc, version 0.3
- STM Publisher Site Index
  - “Pure AI approach”
  - Needed “good, neutral data to train”
  - Too much manual labor to adjust
  - Never released to production
- Uber self-driving AZ car crash

Recent WSJ Articles on AI

- Christopher Mims
  - https://www.wsj.com/search/term.html?KEYWORDS=Christopher%20Mims
- "Should Artificial Intelligence Copy the Human Brain?"
- "Driverless Hype Collides With Merciless Reality"
- "The Key to Autonomous Driving? An Impossibly Perfect Map"
- "The Global Tech Backlash Is Just Beginning"

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Bruce's Thoughts on AI

- AI is a tool, not a solution
  - AI can't make nuanced decisions
  - AI can't solve all problems
  - AI is only as good as the data used to train it
- AI can provide people with more intelligent choices

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Conclusions

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- Publishing is more complex than ever
- Consuming information is *also* more complex than ever
- AI will create as many problems as it solves

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Thank you

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