

# 4th Workshop on Intelligent Textbooks @AIED'2022

Sergey Sosnovsky  
Peter Brusilovsky  
Andrew Lan

## Organisers

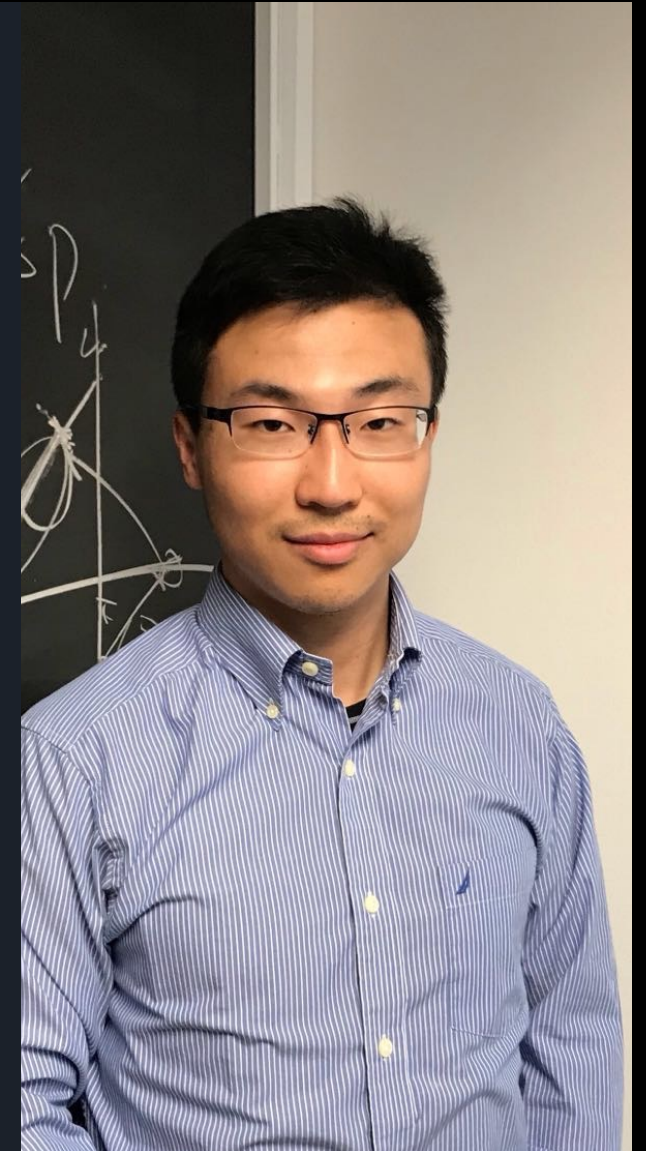


Peter Brusilovsky  
(University of Pittsburgh)

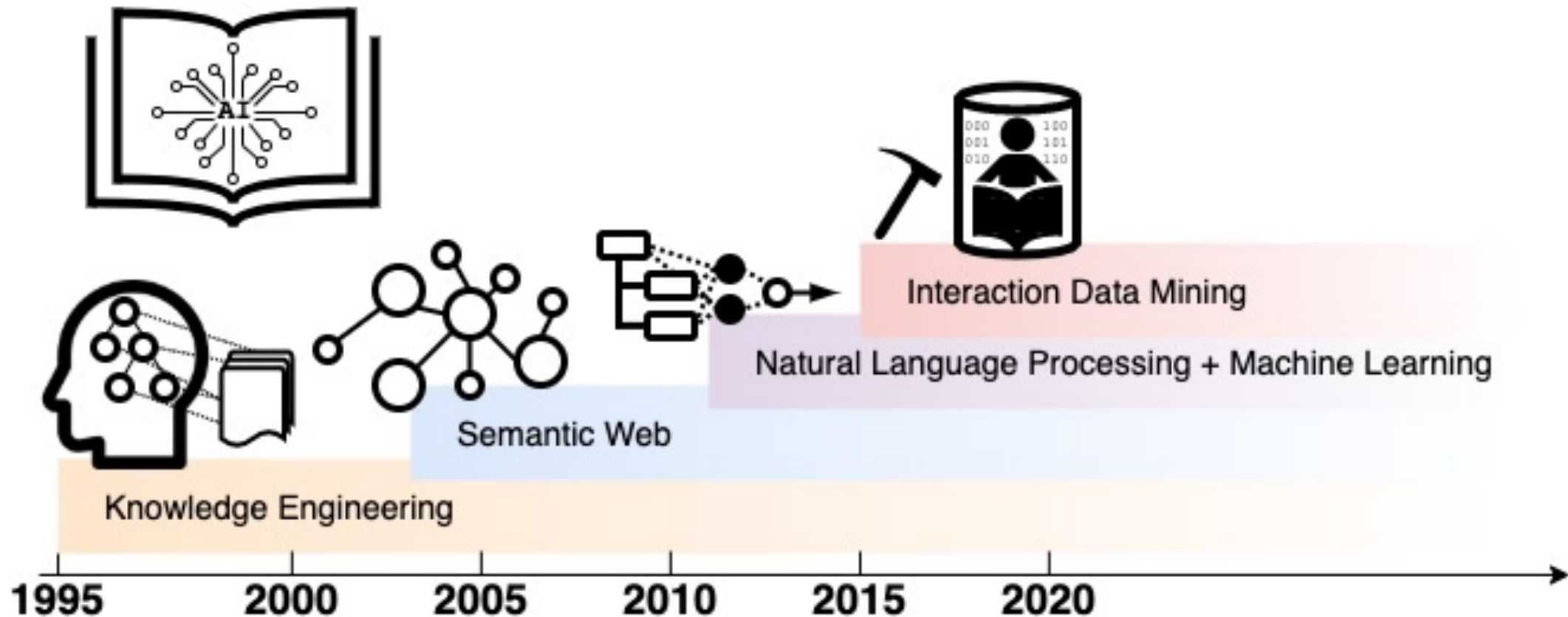


Sergey Sosnovsky  
(Utrecht University)

Andrew Lan  
(University of Massachusetts Amherst)



# Historic View on Intelligent Textbooks



# Themes and Topics of the iTextbooks workshop

Topic/Year	2019	2020	2021	2022
Intelligent interfaces	5	2	1	0
Smart content	1	1	2	2
Knowledge extraction	1	2	0	0
Learning content construction	0	1	3	4
Intelligent textbook generation	1	2	0	1
Interaction mining and crowdsourcing	1	1	3	1
Domain-focused textbooks and prototypes	1	0	2	0
Miscellaneous	4	0	2	1





# Submissions to iTextbooks' 2022

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- 13 received
  - 7 full papers
  - 4 short papers
  - 2 demo papers
- 9 accepted
  - 5 full papers
  - 3 short papers
  - 1+ demo paper

2021: accepted 13 out of 17  
2020: accepted 9 out of 15  
2019: accepted 14 out of 16

# iTextbooks 2022 Programme: Session 1

- **10:00 - 12:30**      **Session 1 (Assessment and Interactivity Generation)**

10:00 - 10:30

Introduction

10:30 - 11:00	Full	Reading Comprehension Quiz Generation using Generative Pre-trained Transformers	<u>Ramon Dijkstra</u> , Zülküf Genç, Subhradeep Kayal, and Jaap Kamps
11:00 - 11:20	Short	Automatic Question Generation for Evidence-based Online Courseware Engineering	<u>Machi Shimmei</u> , Noboru Matsuda
11:20 - 11:40	Demo	Kwame for Science: An AI Teaching Assistant Based on Sentence-BERT for Science Education in West Africa	<u>George Boateng</u> , Samuel John, Andrew Glago, Samuel Boateng, and Victor Kumbol
11:40 - 12:10	Short + Demo	YAI4Edu: an Explanatory AI to Generate Interactive e-Books for Education	<u>Francesco Sovrano</u> , Kevin Ashley, Peter Brusilovsky, Fabio Vitali
12:10 – 12:30	Short	Parallel Construction: A Parallel Corpus Approach for Automatic Question Generation in Non-English Languages	<u>Benny G. Johnson</u> , Jeffrey S. Dittel, Rachel Van Campenhout, Rodrigo Bistolfi, Aida Maeda, and Bill Jerome

# iTextbooks 2022 Programme: Session 2

- 13:30 - 16:00 Session 2 (Enriched Textbooks: from Linking to Learning)

13:30 - 14:00	Full	Towards a Pedagogical Framework for Designing and Developing iTextbooks	<a href="#">Chaohua Ou</a> , Ashok Goel, David Joyner
14:00 - 14:30	Full	Interactions of reading and assessment activities	Niels Seidel, <a href="#">Dennis Menze</a>
14:30 - 15:00	Full	Augmenting Digital Textbooks with Reusable Smart Learning Content: Solutions and Challenges	<a href="#">Jordan Barria-Pineda</a> , <a href="#">Arun Balajiee Lekshmi Narayanan</a> , Peter Brusilovsky
15:00 - 15:30	Full	Enriching Intelligent Textbooks with Interactivity: When Smart Content Allocation Goes Wrong	<a href="#">Alireza Javadian Sabet</a> , Isaac Alpizar-Chacon, <a href="#">Jordan Barria-Pineda</a> , <a href="#">Peter Brusilovsky</a> , Sergey Sosnovsky

15:30 - 16:00

Discussion

# Program Committee

- Jordan Barria-Pineda, University of Pittsburgh
- Paulo Carvalho, Carnegie Mellon University
- Vinay Chaudhri
- Paul Denny, The University of Auckland
- Brendan Flanagan, Kyoto University
- Reva Freedman, Northern Illinois University
- Debshila Mallick, OpenStax, Rice University
- Noboru Matsuda, North Carolina State University
- Andrew Olney, University of Memphis
- Benjamin Paassen, DFKI
- Cliff Shaffer, Virginia Tech
- Atsushi Shimada, Kyushu University
- Khushboo Thaker, University of Pittsburgh
- Ilaria Torre, University of Genoa



thank  
you





# Google group

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<https://groups.google.com/g/intelligent-textbooks>

# Special Issue on Intelligent Textbooks in IJAIED

- Timeline

- Extended abstract (up to 1000 words): October 31, 2022
- Editorial decision on the abstract: November 15, 2022
- Accepted paper submission: December 20, 2022
- 1st round of reviews: February 20, 2023
- 2nd version submission: April 10, 2023
- 2nd round of reviews (If needed): May 08, 2023
- Camera-ready versions: June 05, 2023

