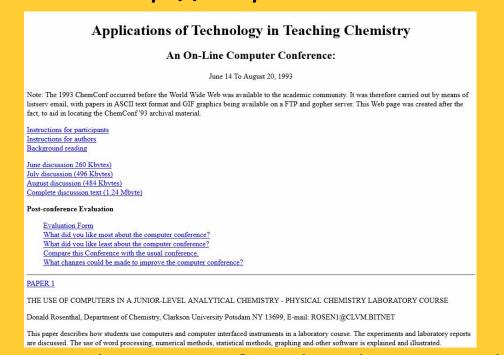
# **ConfChem Online Conferences** 1993-1996

#### FTP/Gopher - No html

images were obtained over ftp or gopher servers, the papers were posted as ASCII text files and the images required a separate image viewer. For many of the participants this was their first introduction

to email http://terpconnect.umd.edu/~toh/



'93 Application of technology teaching chemistry

'95 Can we implement the scholarship of teaching?

'96 New Initiatives in Chemical Education

#### 1996-2010

#### Web 1.0 – listserve emails

'98 '99 ConfChems

'99 What should students know after GenChem

'00 Assessment of Model Creation by Chem Students

'00 The Use of Computer Simulations in General Chemistry

'01 Lecture Demonstrations in Chemistry on the WWW

'01 Environmental and Risk/Benefit Issues in the K-12 Science 2001

'01 On-Line Teaching Methods

'02 Undergraduate Research

'02 Problem Solving in Chemistry

'02 Teaching Safety in High Schools, Colleges, and Universities

'03 Methods Other Than Lecture and Assessment

'04 How and Why Teach Chemistry for Non-Science Majors?

'04 Teaching Computing in Chemistry Courses

'05 Trends and New Ideas in Chemical Education

'05 The Application of Technology in High School Chemistry

'06 Web-Based Applications for Chemical Education

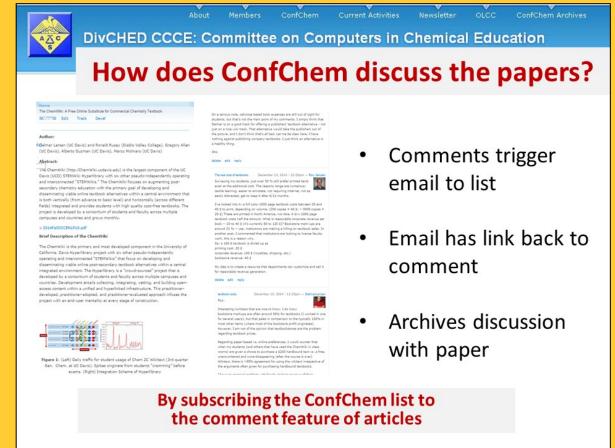
'06 Ensuring the Future Through Education of DivChEd

'07 International Conference on First-Year College Chemistry

'07 Meeting the Challenges of Teaching Chemistry for General **Education Students** 

#### 2011-Present

#### Web 2.0 - Drupal CMS - Online Discussions



'11 Case-Based Studies in Chemical Education

'12 Social Web Technologies

'14 Flipped Classroom

'15 Interactive Visualizations for Chem Teaching and Learning

Present

'16 Science, Disarmament, and Diplomacy in ChemEd

'16 Select 2016 BCCE Presentations

'17 Mathematics in Undergraduate Chemistry Instruction

# The Committee on Computers in Chemical Education (CCCE):

# 25 years of ConfChem Online Conferences.

Xavier Prat-Resina¹, Robert E. Belford², Tanya Gupta³, Jon Holmes⁴, Jennifer L. Muzyka⁵, Eric Nelson<sup>6</sup>, Rick Spinney<sup>7</sup>, Jason Telford<sup>8</sup>

<sup>1</sup>Univ. of Minnesota Rochester. <sup>2</sup>Univ. of Arkansas at Little Rock, <sup>3</sup>South Dakota State Univ., <sup>4</sup>Univ Wisconsin Madison, <sup>5</sup>Centre College, <sup>6</sup>ChemReview.Net, <sup>7</sup>The Ohio State University. <sup>8</sup>Maryville Univ.

# What is the CCCE?

We are a standing committee of ACS Division of Chemical Education, and we seek to encourage, publicize and support the development, assessment and use of computing technologies in chemical education.

# The CCCE online conferences:

### Advantages of online conferences

Low cost for attendance: Free

Wide audience: International participation

Open Access Archives Discoverable by search engines

Asynchronous discussions Participants have time to discuss papers Ideal for multiple time zones

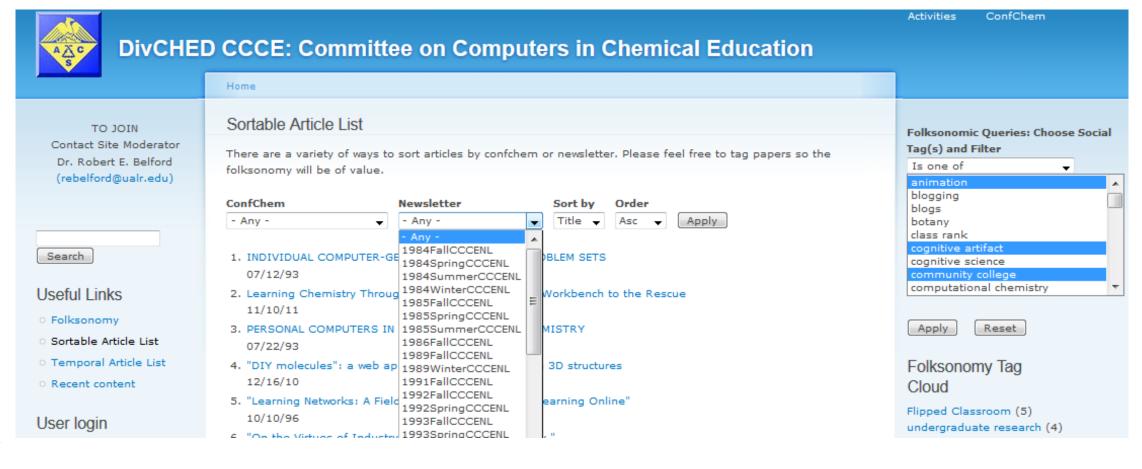
Ideal for posting digital objects Participants can use digital objects during presentations

# How they work

- A paper is highlighted and discussed on the web during few days.
- Threads comments below each paper
- Comments become part of paper and they are also archived. It can be thought as an open peer-review
- Comment triggers email to all subscribers
- After a paper stops being highlighted, the discussion may continue without email triggers.

### **Archives**

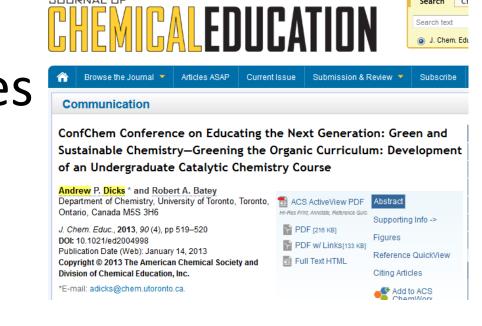
Our server has archived and indexed almost all ConfChem and Newsletter articles. Since 2010 all the comments and discussions, are also part of the archive.



#### **Publications**

Since 2010 we sought to publish the conference:

• JCE ConfChem Features 2010-2017



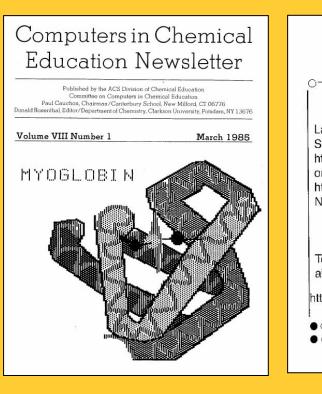
Chemistry Teacher International (2018...)

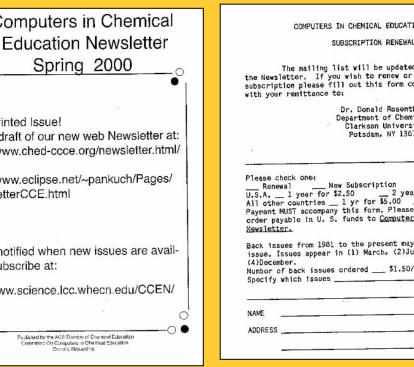
## **Future Directions**

Create a sustainable community of practice on 1)Development 2)Implement. and 3) Assessment of Computers in ChemEd using DivChEd/ChemEdX servers

# **Newsletters and OLCC**

### *1978-2000* **Printed Newsletters**



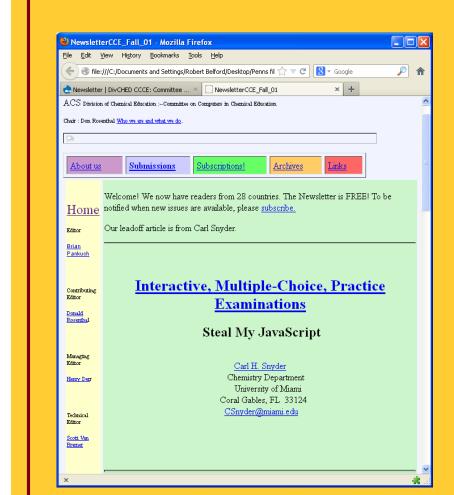


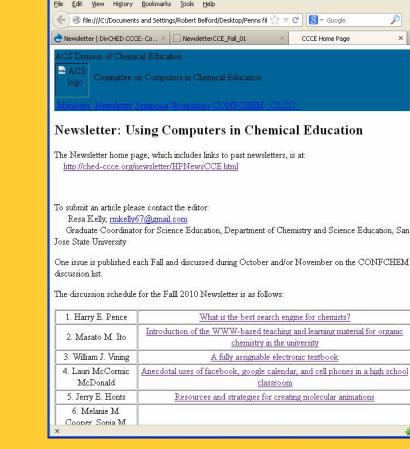
#### 1996 and 1998

First Online Chemistry Course (OLCC) on Environmental Chemistry OLCC on Pharmaceuticals Discovery

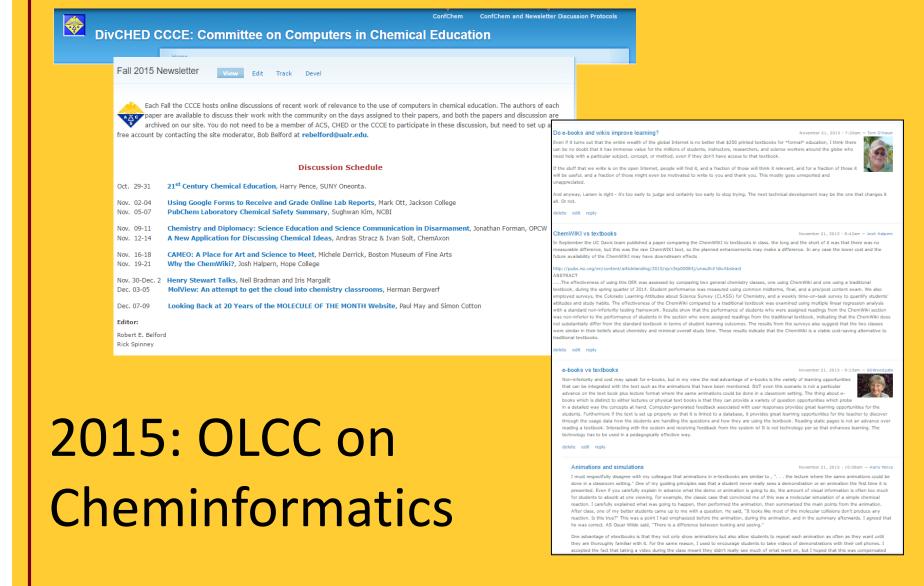
2000-2010 Web 1.0

2004: OLCC on Chemical Safety





### 2010-Present Web 2.0 – Drupal CMS



Newsletter Discussions every Spring ConfChem Discussions every Fall

2000

