Talking Physics

Can Social Media Teach HEP to Converse Again?

S. Goldfarb
University of Michigan
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Rocks are made of smaller rocks

I confirm, but my systematic error is smaller than yours
Early Science Communication

Illustration

Demonstration

Conversation
Growth of Collaboration in HEP

Early Example: Small Collaborations
Local Collaborators

Past Century
Large Experiments
International Participation

Recent Example: ATLAS Collaboration
3000 Members (1000 PhD Students)
175 Institutions
38 Countries

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Large, geographically dispersed collaborations require tools, which not only support communication, but which provide environments in which all members can actively participate in development and informed decision making.
Public communication requires the synthesis of complex concepts into understandable terms. It requires a clear understanding of the topic, as well as the capabilities and needs of the target audience. It also requires effective world-wide platforms.

Facilitating Broadcast
The World-Wide Web

Vague but interesting

Informative

Pervasive

Interactive
Then Came Social Media

Over time, search and email are most popular online activities

% of internet users who do each activity

- Send or read email (93% in 2011)
- Use a search engine (92% in 2011)
- Get news online (85% in 2011)
- Buy a product online (61% in 2011)
- Social network sites (11% in 2011)


What’s this all about?

Search Volume index

Facebook: 1.00
The: 1.40

News reference volume

Then Came Social Media

Who uses Social Media?

The Media and the Public
The Feedback Effect

- Original Recipe
  - Create Content
  - Serve on Platform

- New Step
  - Communicate to Social Media

- Case 1: Public Picks it up
  - Shares with more public
  - Shares with media

- Case 2: Media Picks it up
  - Shares with public
  - Shares with more media
Experts in Education and Collaborative Tools already know the value of conversation and interactivity for the communication of complex concepts in closed communities. Social Media demonstrates the potential of using these methods to communicate science to a world-wide audience.
"Tell me and I forget, show me and I remember, involve me and I understand."

The World as a Collaboration
How Social Media Works

INFO

Twitter

Facebook

Google+

Relationship

Followers & Followings
People who follow me and people I follow

Friends
People with whom I’m in a one-to-one relationship

People
People who follow contents I share with groups of them

Sharing with specific groups of people

Lists
Lists allow sharing contents with groups of friends

Circles
Circles allow to set contents visible to groups of contents

Sharing tenet

No
My contents appear in the streams/news feed of people who follow me

Lists
My contents appear in the streams/news feed of my friends

Circles
My contents appear in the streams/news feed of those people who get them in that circles (or in the incoming group)

Shared contents visibility

Open profile
Everyone sees everything I share

Private profile
Only those people who follow me can see the contents I share

Contents can be shared with:
Everyone. All my friends and their friends. All my friends. Selected friends

Contents can be set visible to:
Everyone. People in my circles and people in circles of those who are in mine ones. All my circles. Selected circles. Selected contents

Social graph

1) A and C follow B, B only follows A
2) B only follows A

1) A and B are friends
2) C and B are friends

1) A sees contents that B shares with those in circle 1
2) B sees contents that B shares with those in circle 2
3) C sees contents that A shares with those in circle 3

Contents I publish...

...will be visible to my followers!

...will be visible to my friends!

...will be set visible to recipients only if I’m in their circles!

I will see...

...what the people I follow are publishing!

...what my friends are publishing!

...what those people who put me in a circle are publishing for that circle!

Created by Stefano Epifani (blog.stefanoepifani.it - twitter.com/stefanoepifani). Graphics by Claudia Menoni

SOCIAL MEDIA EXPLAINED

TWITTER
I’M EATING A #DONUT

FACEBOOK
I LIKE DONUTS

FOURSQUARE
THIS IS WHERE I EAT DONUTS

INSTAGRAM
HERE’S A VINTAGE PHOTO OF MY DONUT

YOUTUBE
HERE I AM EATING A DONUT

LINKEDIN
MY SKILLS INCLUDE DONUT EATING

PINTEREST
HERE’S A DONUT RECIPE

LAST FM
NOW LISTENING TO “DONUTS”

I’M A GOOGLE EMPLOYEE
WHO EATS DONUTS.
How Are We Using Social Media?

- **Blogs for human interest articles**
- **Facebook & Google+ for media-rich content**
- **Twitter for announcements and links to articles**
How Else Are We Conversing?

- Masterclasses
- Local Student Programs
- Public Exhibitions
- Entertainment

Graph showing data from 2005 to 2011 for Institutes and US program.
How Else Are We Conversing?

Local Visits

Google Hangouts

Virtual Visits
Embarrassingly flattering article in my hometown newspaper about my visit to the local high school:

Which of the buttons on the bottom would you have pushed?
Avoiding the Pitfalls

- Remember it is Conversation
  - First listen
  - Offer something useful
  - Watch comments, respond when appropriate
  - Stay human

- Have a Strategy Appropriate to the Tool
  - Target Audience
  - Clear Message

- Prepare
  - Media Training
  - Presentation Training
Conclusions

- Conversation is Not New
  - Collaboration
  - Education

- Our Usage of Conversation is New
  - Social Media
    - Reaching Large, Diverse Audiences
  - Other Methods
    - Improving the Quality of Communication

- In 2012 We Have a Lot to Say
  - Let’s Talk!
Still Doubt Social Media Value?

The Facebook Offering: How It Compares

Facebook
Facebook's offer price will be $38 a share, giving the company a valuation of $104 billion, nearly four times larger than Google in 2004.

Year of I.P.O.

Companies:
- Facebook
- Google
- Apple

Sources: Jay Wite, University of Pittsburgh; Bloomberg