



**NRC-CNRC**

*Institute for  
Information  
Technology*

# **What do we see when we look through a computer?**

**Stephen Downes**

**National Research Council Canada**

**May 30, 2006**



National Research  
Council Canada

Conseil national  
de recherches Canada

**Canada**



Theme of this conference:

Through the Eyes of Our Students: looking forward



### The Net Generation:

- Always connected, immediacy
- Learns by Exploring
- Independent, open, expressive
- Interaction, shared authority

<http://www.growingupdigital.com/>

<http://www.educause.edu/educatingthenetgen>

What we see when we  
look at a computer:

- words and textual content
- images and graphics
- perhaps some video

In other words – traditional  
paper-based media...

But what does someone  
immersed in net culture see?



# Virtual Reality

Is the online  
somehow unreal?

We might think so... but  
consider how we approach  
what we perceive through:

- mirrors
- telescopes
- telephones



## MMORPGS

<http://en.wikipedia.org/wiki/MMORPG>

Video games...  
Videoconferencing...



It's all people...

Websites are people too...

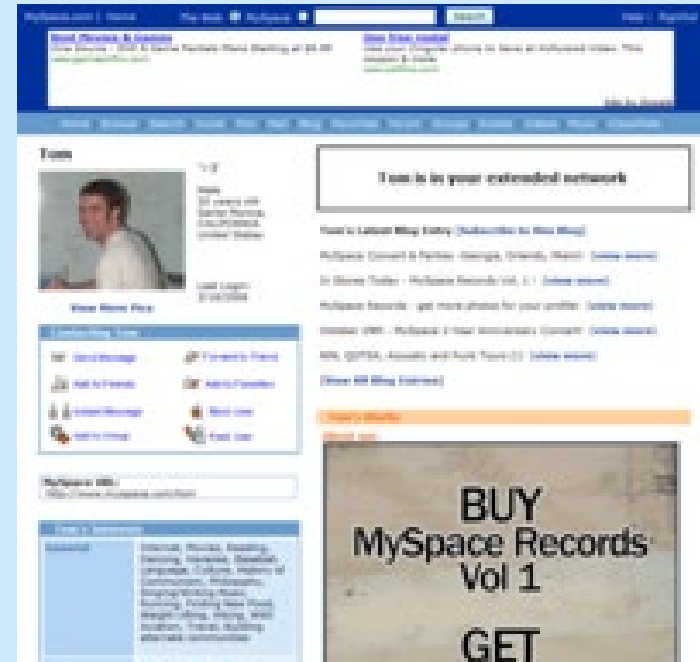
<http://secondlife.com/>



# The Net Generation creates its own media...

*Identity Production in a Networked Culture: Why Youth Heart MySpace ...* Danah Boyd <http://www.danah.org/papers/AAAS2006.html>

“The dynamics of identity production play out visibly on MySpace. Profiles are digital bodies, public displays of identity where people can explore impression management.”



## Blogs and Wikis

"Never have so many people written so much to be read by so few..."

-- Katie Hafner NY Times.



[Blogger](#) - [Live Journal](#) - [Movable Type](#) - [Wordpress](#)

[Educational Blogging](#) – article

[Educational Weblogs](#) - [Edublogs.org](#)

[Wikipedia](#) – as [compared to Britannica by Nature](#)

## Photos, Podcasting and Vodcasting

Flickr

Podcasting - wikipedia

iPodder - Odeo –

Liberated Syndication

Youtube - video

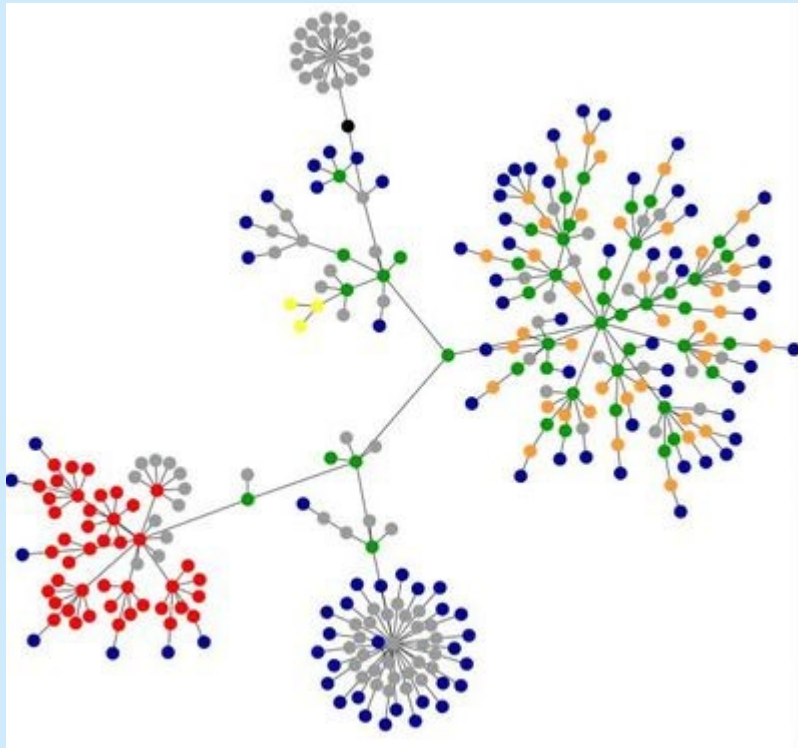
Podcasting in Learning

Ed Tech Talk - Ed Tech Posse - FLOSSE Posse

Bob Sprankle - Education Podcast Network







But... when we look at a website... at media...

What do we *see*?

Something like this.

Websites as Graphs

<http://www.aharef.info/static/htmlgraph/>

Each blue dot is a hyperlink to another website

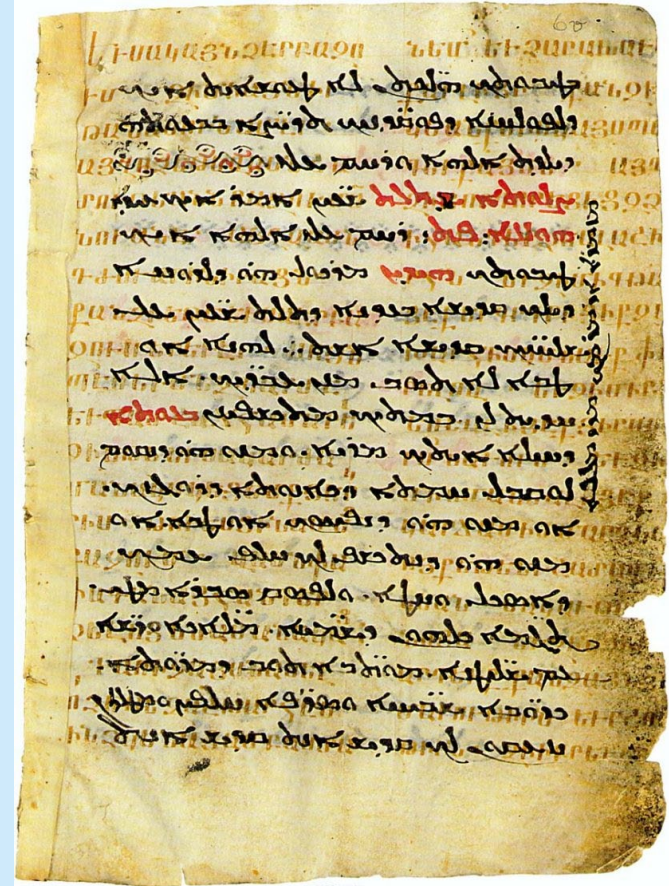
# New Media

Traditional media is linear –  
hypermedia is *multidimensional*

Traditional media is *composed* –  
hypermedia is *connected*

Traditional media *describes* –  
hypermedia *represents*

Traditional media is *static* –  
hypermedia is *dynamic*



MS 575  
Codex Armenicus Rescriptus. Palimpsest,  
Monastery of St. Catherine, Mt. Sinai, 6th c. and 1st half of 10th c.

Misa Matsuda: networked technologies create “full-time intimate communities.”

Danah Boyd: MySpace provides a fertile ground for identity development and cultural integration. As youth transition from childhood, they seek out public environments to make sense of culture, social status and how they fit into the world.

<http://www.danah.org/papers/MySpaceDOPA.html>

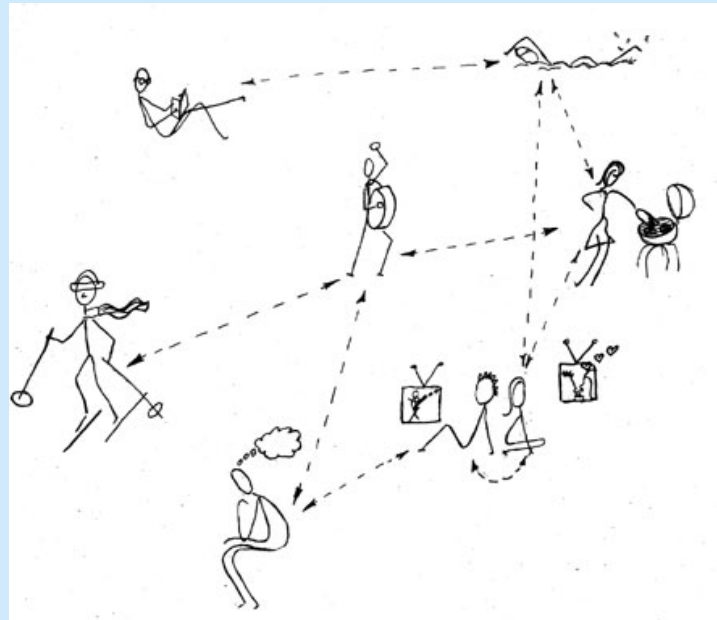


[http://www.educause.edu/a  
pps/er/erm04/erm045.asp](http://www.educause.edu/apps/er/erm04/erm045.asp)

# Social Networking

A website is not a person's *description* of themselves...

It is a *presentation* of themselves through their network



[http://en.wikipedia.org/wiki/Social\\_networking](http://en.wikipedia.org/wiki/Social_networking)





<http://www.socialcustomer.com/>

When *we* look through the internet, we are creating networks... perception - as an extension of ourselves... McLuhan - our networks are extensions of ourselves - facets of our identity... when we look at the computer **we see ourselves** through our contacts, our liaisons, our interactions...

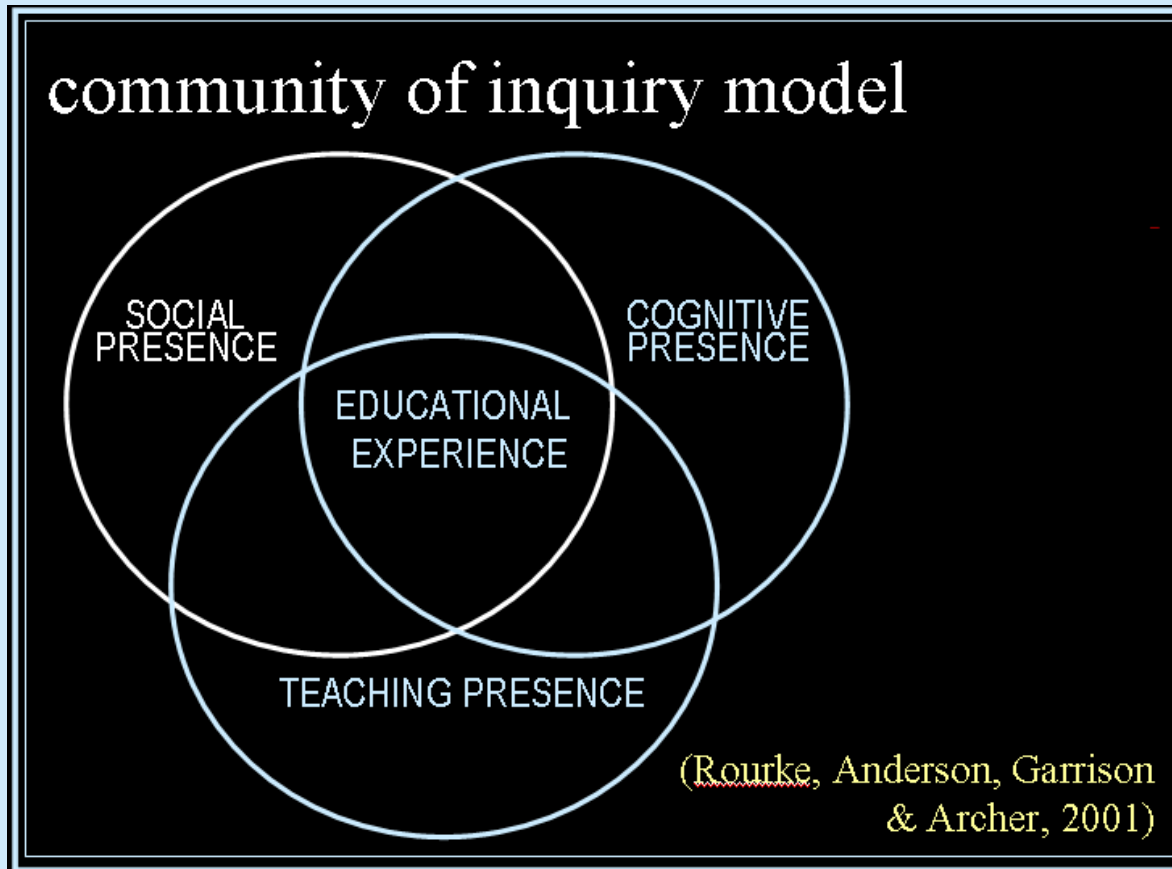


## Why is this important?

In a nutshell – because it means that theories of online distance learning must:

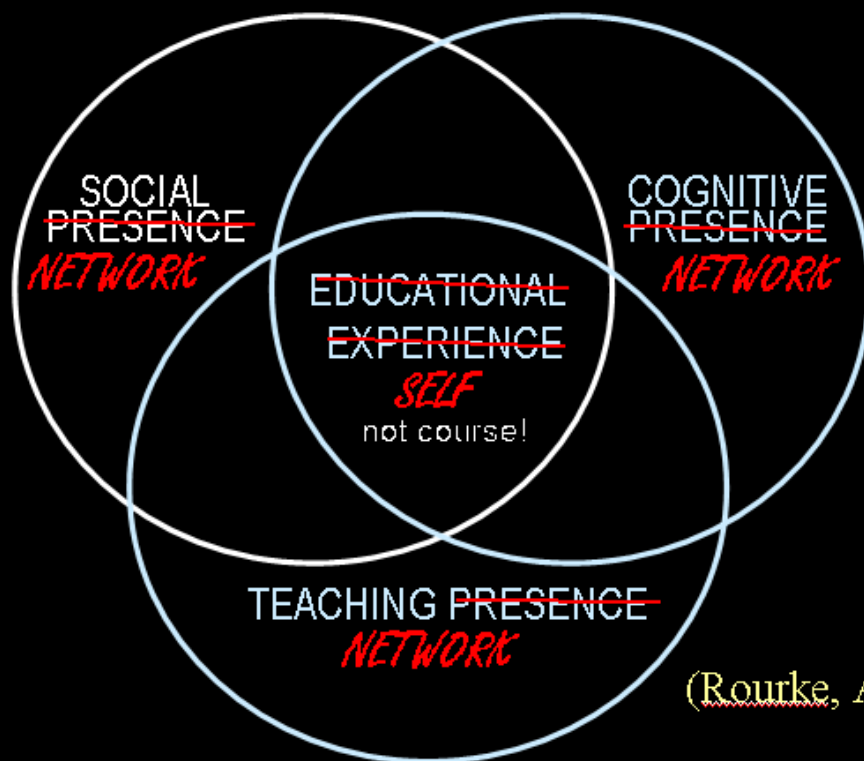
- capture the expression of self as a network of connections
- place this self at the centre of the learning experience

For example...

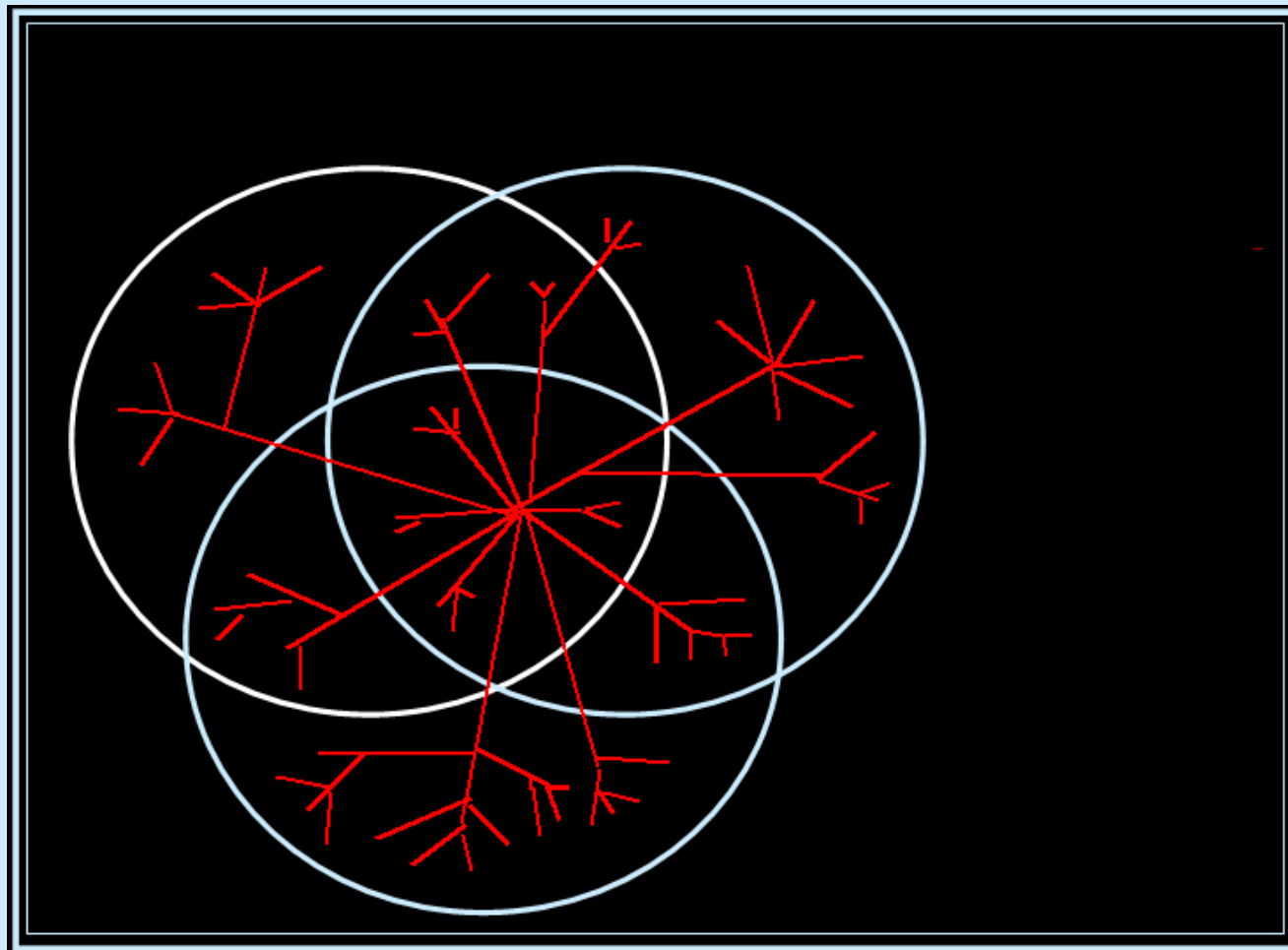


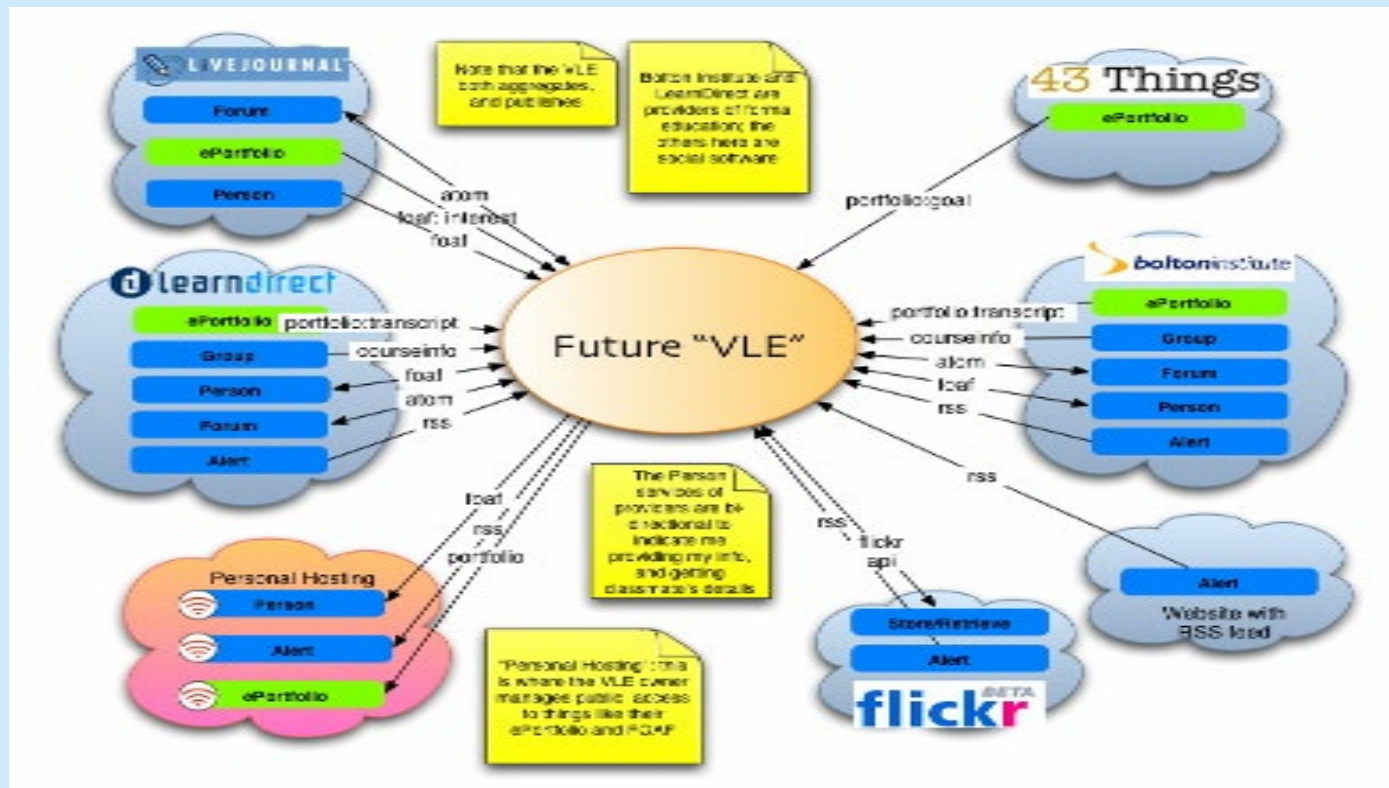
<http://cider.athabascau.ca/>

## community of inquiry model



(Rourke, Anderson, Garrison  
& Archer, 2001)





<http://elearnmag.org/subpage.cfm?section=articles&article=29-1>



## Traditional Online Learning

- Institution Based
  - Online courses, learning management system
  - Content ‘federations’ – closed network
- Product Based
  - Content packaging and CD-ROM delivery
  - Digital rights and authentication
- Content Based
  - The idea of courseware, course packs
  - Learning design and sequencing

## Learning Networks

- Not Institution Based
  - Resource based, learning integration
  - Open access, content networks
- Not Product Based
  - Web based, content not packaged but aggregated
  - Identity used to enable access, not restrict it
- Not Content Based
  - E-learning as engagement, conversation
  - Focus on services and interaction

## Connective Knowledge

- [Connectivism](#)
- [Connective Knowledge](#)
- [E-Learning 2.0](#)

### Principles of Connective Knowledge:

- Autonomy – choice and control for the learner
- Diversity – different cultures, different technologies
- Openness – to read, to write
- Interaction – to create community, to enquire, to assert

# Application

Example - list of best practices:

- Outreach – becomes communication
- Financing – becomes open access (maybe?) or new models
- Assessment – from tests to portfolios (maybe?)
- Teaching-Learning Process – becomes self-guided
- Student Support – becomes self-service (like games?)
- Technology – becomes student controlled and owned
- Strategic partnerships – created as needed by students



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**<http://www.downes.ca>**

Science  
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