Script generated by TTT
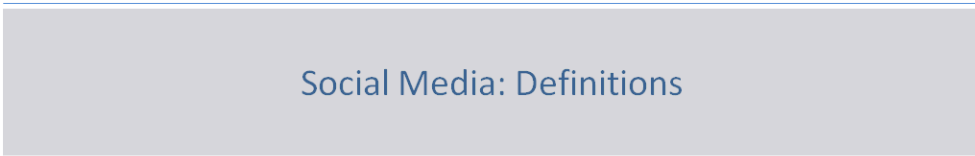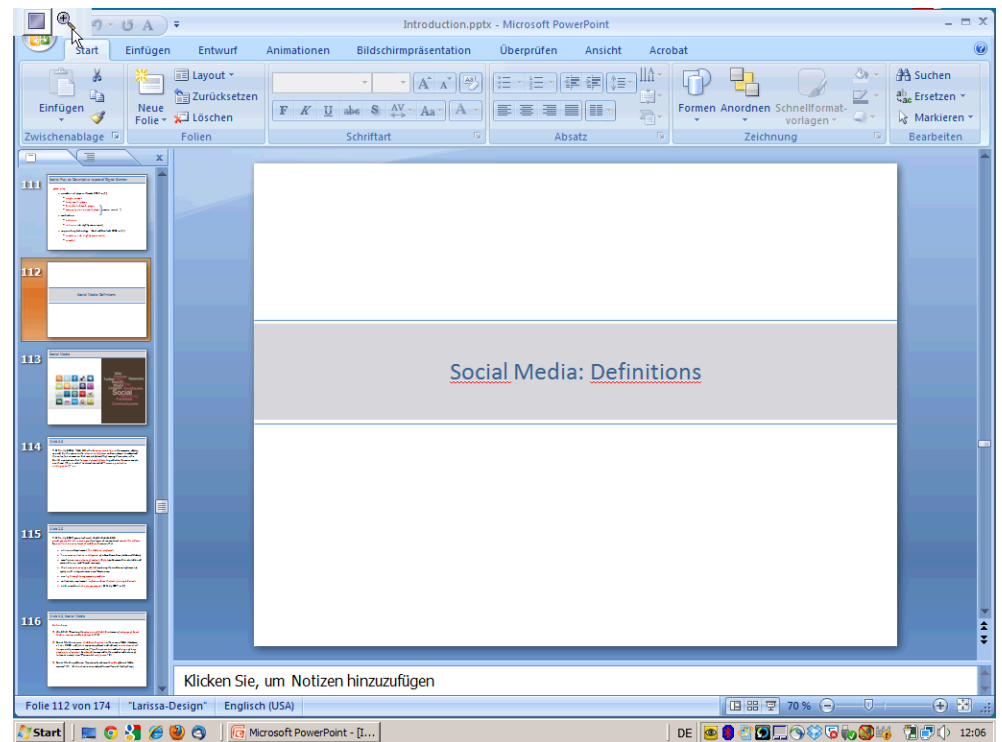
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Date: Tue May 07 12:06:58 CEST 2013

Duration: 86:43 min

Pages: 45

Social Media: Definitions

Social Media

T. O'Reilly (2004) : "**Web 2.0** is the *business revolution* in the computer industry caused by the move to the *internet as platform*, and an attempt to understand the rules for success on that new platform. Chief among those rules is this: Build applications that *harness network effects* to get better the more people use them. (This is what I've elsewhere called "*harnessing collective intelligence*.")" [4][5]

T. O'Reilly (2007) (more technical): **Web 1.0 → Web 2.0**:
paradigm switch of replacing certain types of conventional *monolithic software* by a *collection or network of web based* services that

○ utilize and implement `the Web as a platform',

○ `*harnesses collective intelligence*' of a broad user base (→ Social Media),

○ emphasize *importance of content / data* (made accessible, relatable and extensible via web-based services),

○ that are *continuously updated* (replacing the traditional software life cycle) and integrate users as co-developers,

○ use *lightweight programming models*,

○ collectively implement `*software above the level of a single device*',

○ and provide a `*rich user experience*'. [O'Reilly 2007; in (2)]

definitions

● **Web2.0**: "denoting the *extension of Web 1.0* in terms of *instances of Social Media services* and *platforms* [...]" [2]

● **Social Media service**: *Web-based service* (in the sense of SOA [MacKenzie et al., 2006; in (2)] „[...] supporting (direct and indirect) *social interaction*" [(especially communication)] "via the *generation* and *exchange* of *large amounts of content* by a *broad* (compared to the number and nature of Internet users), non-IT-specialist *set of users*." [2]

● **Social Media platform**: "functionally coherent *bundle* of Social Media services" [2] (distinction service ↔ platform often not totally sharp)

definitions (contd.)

● **Social Media service class**: examples: Wiki, Blog, discussion board etc.

● **Social Media service software**: implementing Social Media services; example: Media Wiki [med, 2012; in (2)]: implementing Wikipedia

● **Social Media platform software**: implementing Social Media platforms; example: Elgg [elg, 2012; in (2)] implementing Social Networking platforms

● **Social Software**: Social Media service software ∪ Social Media platform software

definition issues:

- **CSCW software**: collaboration is form of social interaction → CSCW software / services (examples: Revision Control Software (e.g. SVN [svn, 2012; in (2)]), Google Docs [goo, 2012a; in (2)], or professional collaboration platforms (e.g. Creativity Support Systems, Open Innovation platforms (see (2), chapter 11), Company Social Networking platforms (see [Koch and Richter, 2009; in (2)]) **also Social Media** software / services ?

- **Social Media**: involving user-generated content that is *"created outside of professional routines and practices"* [OECD, 2009, in (2)] [Kaplan and Haenlein, 2010; in (2)] but: constant blurring between „professional" and „non-professional"

- [OECD, 2009 ; in (2)], [Kaplan and Haenlein, 2010 ; in (2)]: **user-generated content** in Social Media should *"show a certain amount of creative effort"* and should be published to a larger audience → exclude classic messaging services (e.g. email) from Social Media?

Social Media: Characteristics

other issues:

- **criticism**: Web 1.0 **already providing** all basic prerequisites and characteristics of collaboration, social interaction and distributed content generation and exchange (see [Berners-Lee and Laningham, 2006; in (2)]).

- → **necessary**: qualitative or quantitative studies in (technology) sociology or (technology) history (using historical criticism methodology)

- **utility** of Web 2.0: example: ongoing debate about quality of user generated content: [Giles, 2005; in (2)], [Flintoff, 2007; in (2)], [Lorenz et al., 2011; in (2)], [Wöhner and Peters, 2009; in (2)]

Social Media - Characteristics

Social Media characteristics

- **openness:** admissability, low technical barriers

- **content:** subject to constant change

- more **interactive** → e.g. enabling backchanneling [Sutton et al., 2008]

- **dynamics**: fast media → emergent social effects: e.g. triggering initiatives in cases of disasters, e.g. in
  - 2007 Southern California wildfire [Sutton et al., 2008; in (2)];
  - Fukushima 2011 radiation levels measurements [par, 2012; in (2)] 2011
 - Arab Spring phenomenon [DeLong-Bas, 2012 ; in (2)].

Social Media characteristics (contd.)

social information processing paradigm: collectively solve problems beyond individual capabilities [Lermann 2007]:

- ○ (Authoring tools → Blogs), Micro-Blogs, ...
- ○ Collaboration tools → Wikis, Wikipedia , ...
- ○ Tagging systems → del.icio.us, Flickr, CiteULike , ...
- ○ Social Networking → Facebook, Xing , ...
- ○ Collaborative Filtering → Digg, Amazon, ...
- ○ Social Games → MMOGs (WoW etc.), ...

Social Media characteristics (contd.)

Users collaboratively explicate / model relations of various kinds:
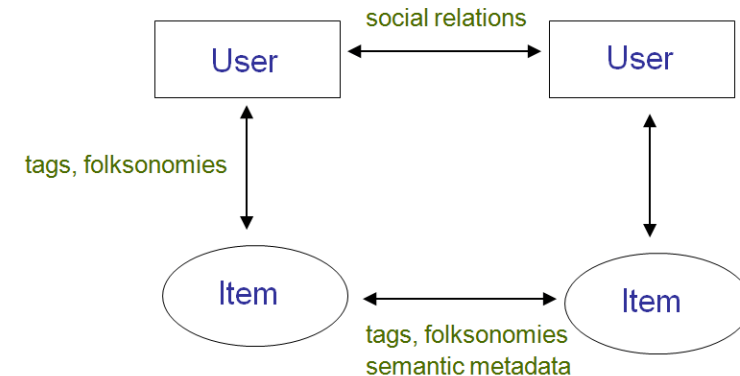
Social Media: Technologies

general enabler technologies for Social Media: technologies for building general Rich Internet Applications (RIAs) or Web-applications (see e.g. [Shklar and Rosen, 2009; in (2)]):

- ○ basic Web protocols (e.g. HTTP(S))
- ○ languages for declarative representation of structure, actual content, and format of content (e.g. HTML5, XML + related (e.g. XSLT), specialized XML languages (e.g. GML))
- ○ Semantic Web languages (e.g. RDF(S), OWL, SPARQL), Social Semantic Web Ontologies (e.g. SIOC, FOAF)
- ○ client-side technologies (e.g. Flash, JavaScript, JSON, AJAX, Silverlight)
- ○ server-side technologies (e.g. PHP, JSP, ASP, Ruby on Rails, Spring, Databases)
- ○ syndication and mash-up of content (e.g. RSS, Atom)
- ○ Social Software (e.g. Elgg, MediaWiki)

**Social Media classes:** Characterization by [Kaplan and Haenlein, 2010; in (2)]

		Social presence/ Media richness		
		Low	Medium	High
Self-presentation/ Self-disclosure	High	Blogs	Social networking sites (e.g., Facebook)	Virtual social worlds (e.g., Second Life)
	Low	Collaborative projects (e.g., Wikipedia)	Content communities (e.g., YouTube)	Virtual game worlds (e.g., World of Warcraft)

Social Media classes:
Characterization by
[Kietzmann et al., 2012;
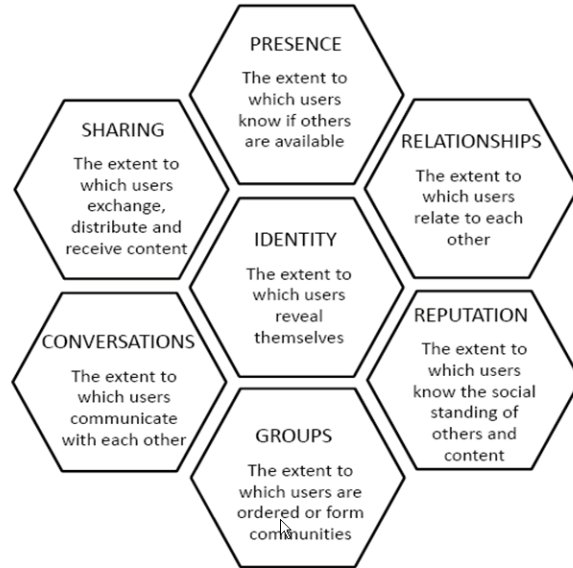
- all social interaction in Social Media may be viewed as forms of **communication** → characterize Social Media classes via **classification system for communication**

- Social Media services and platforms will **typically** support communication that is m:n or 1:n, indirect and non-commercial.
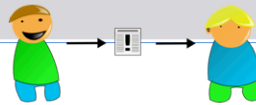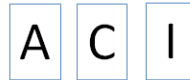
communication axes:

- **Cardinality** of persons involved in a typical communication act {1:1, 1:n, m:n}

- **Directedness**: {direct, indirect}: specific dedicated receiver / list of receivers vs. open set of receivers, possibly formally or informally constrained e.g. via certain properties.

- **Anonymity**: {non-anonymous, anonymous}: the identity of the sender(s) is or is not known to the receiver(s).

- **Threadedness**: {threaded, non-threaded}: do `reply-type' relations exist between representations of communication acts?
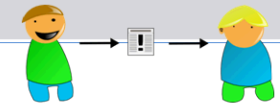
communication axes (contd.):

- **Content**: {textual, graphical, video, contextual (locations, social relations, user-item-relations etc.)}

- **Transmission**: {stream, discrete}

- **User Interface / Device / Usage Pattern**: {mobile, laptop, desktop}

- **Goals** (may overlap):
  - higher level of abstraction: {informing or being informed, create or gain awareness, collaborate, chat, etc.}
  - lower level of abstraction: {find a partner, maintain + expand social network, generate + manage ideas, exchange movies or music, entertain or be entertained, explicate and organize knowledge, etc.}

- **Commercialization**: {commercial, non-commercial}

coarse classes of Social Media

- **Awareness** services:
  - inform users about events or states directly linked with other users that fulfill certain (contextual) criteria, proactively or on request
  - primary form of content: contextual information.
  - typical form of communication: 1:n and m:n; indirect; non-anonymous; non-threaded; contextual (e.g. locations, social relations, online-status etc.); discrete transfer; non-commercial.
  - example sub-class: Location-Based Awareness services

- **Direct Communication** services:
  - support direct communication of all forms
  - examples: messaging, certain forms of Microblogging, chat, IP-telephony

- **Information** services:
  - support indirect communication (if not already classified as Awareness service)
  - comprise the majority of the finer grained Social Media classes discussed above.

classes with an emphasis on communication types

- **Blogs**:
  - examples: Blogspot [blo, 2012; in (2)] (Blog hosting platform), official Google blog (an instance) [goo, 2012c in (2)].
  - Social Software example:WordPress [wor, 2012].
  - overlaps with: Microblogs. Superclass: information services.
  - supported typical communication form: 1:n; indirect; non-anonymous; non-threaded; textual (+ photos); desktop or laptop; discrete transfer; noncommercial;
  - typical goals: self-presentation, informing, awareness.
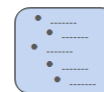
classes with an emphasis on communication types

- **Microblogs**.
  - examples: Twitter [twi, 2012].
  - overlaps with: direct communication services.
  - superclass: information services.
  - emphasis on short blog items and mobile use.
  - supported typical communication form: 1:n; indirect (and also direct); non-anonymous; non-threaded; short textual; mobile; discrete transfer; non-commercial
  - typical goals: self-presentation, informing, awareness.

classes with an emphasis on communication types

- **Wikis**
  - example: Wikipedia
  - Social Software example: Wikia [wik, 2012b; in (2)].
  - supported typical communication form: m:n; indirect; anonymous; non-threaded; textual; desktop; discrete transfer; non-commercial;
  - typical goals: knowledge management (codification, structuring, etc.).

- **Discussion Boards**
  - example: Sherdog [she, 2012; in (2)].
  - superclass: information services.
  - Social Software example: PHPBB [php, 2012b].
  - supported typical communication form: 1:n; indirect; non-anonymous; threaded; textual; desktop + laptop; discrete transfer; non-commercial
  - typical goals: exchange opinions and facts, give advice.

Social Media Classes

- **(Messaging)**
  - examples: Skype [sky, 2012], e-mail, SMS.
  - superclass: direct communication services.
  - overlaps with: Microblogging.
  - supported typical communication form: 1:n and 1:1; directed; non-anonymous; threaded; textual (+ attachments); mobile; desktop, or laptop; discrete transfer; noncommercial;
  - typical goals: informing, chatting, etc.
  - usually not considered to be Social Media but matching our definition of Social Media

Social Media Classes

classes with an emphasis on communication types

- **(IP-Telephony)**
  - example: Skype [sky, 2012].
  - superclass: direct communication services.
  - supported typical communication form: 1:n, m:n, and 1:1; directed; non-anonymous; non-threaded; audio + video; desktop or laptop; streaming; non-commercial
  - typical goals: informing, chatting, etc.
  - usually not considered to be Social Media but matching our definition of Social Media

Social Media Classes

classes with an emphasis on communication types

- **(Chat)**
  - superclass: direct communication services.
  - supported typical communication form: m:n and 1:1; mostly directed; non-anonymous; nonthreaded; textual; desktop or laptop; streaming; non-commercial
  - typical goals: informing, chatting, etc.
  - usually not considered to be social media but matching our definition of Social Media
- **Social Games**
  - examples: Farmville, World of Warcraft
  - supported typical communication form: 1:1, m:n; directed; non-anonymous; non-threaded; via game elements emulating human social interaction; mobile, desktop or laptop; streaming, commercial and non-commercial
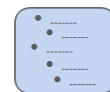 - typical goals: entertainment

Social Media Classes

classes with an emphasis on communication types

- **Wikis**
  - example: Wikipedia
  - Social Software example: Wikia [wik, 2012b; in (2)].
  - supported typical communication form: m:n; indirect; anonymous; non-threaded; textual; desktop; discrete transfer; non-commercial;
  - typical goals: knowledge management (codification, structuring, etc.).
- **Discussion Boards**
  - example: Sherdog [she, 2012; in (2)].
  - superclass: information services.
  - Social Software example: PHPBB [php, 2012b].
  - supported typical communication form: 1:n; indirect; non-anonymous; threaded; textual; desktop + laptop; discrete transfer; non-commercial
  - typical goals: exchange opinions and facts, give advice.

collaboration oriented classes:

- **(Revision Control)**
  - example Social Software: SVN [svn, 2012; in (2)].
  - superclass: Information services.
  - overlaps with: content oriented classes, especially document management.
  - supported typical communication form: 1:n; undirected; non-anonymous; threaded; code; desktop or laptop; discrete transfer; commercial and non-commercial
  - typical goals: collaborative code development for Open Source
  - usually not considered to be social media but matching our definition of Social Media

collaboration oriented classes:

- **(Content Management)**
  - examples for Social Software: WordPress [wor, 2012; in (2)], Joomla [joo, 2012; in (2)].
  - superclass: Information service.
  - overlaps with: Blogs, Wikis, content oriented classes.
  - supported typical communication form: 1:n; un-directed; non-anonymous; non-threaded; textual + graphical; desktop or laptop; discrete transfer; commercial and non-commercial
  - typical goals: collaborative content management

collaboration oriented classes:

Open Innovation platforms (see also (2) chapter 11).
  - example: Open-I platform (see [ope, 2011; in (2)].
  - overlaps with: Social Networking platforms.
  - supported typical communication forms: 1:n, 1:1 and m:n; directed and un-directed; non-anonymous; threaded; textual + graphical; desktop or laptop; discrete transfer; non-commercial
  - typical goals: develop and incubate ideas and project proposals.

- **(Collaborative Creativity** services and platforms).
  - example: IdeaStream [Forster, 2010; in (2)].
  - supported typical communication form: m:n; un-directed; anonymous and non-anonymous; threaded and non-threaded; textual + graphical; desktop or laptop; discrete transfer; commercial and non-commercial
  - typical goals: develop and rate ideas.

collaboration oriented classes:

- **(Knowledge Codification)**
  - example: DBPedia Wikipedia

Social Networking and related classes

- **Social Networking platforms**
  - ○ example: Facebook
  - ○ example Social Software: Elgg [elg, 2012; in (2)].
  - ○ supported typical communication forms: 1:n, 1:1, and m:n; directed and un-directed; non-anonymous; threaded and non-threaded; textual, contextual, and photos; desktop or laptop; discrete transfer; non-commercial
  - ○ goals: maintain and expand social network (including self-presentation).

- **Mobile Social Networking platforms**
  - ○ Comparable to Social Networking platforms with an emphasis on mobile usage, contextual content elements and context awareness of services
  - ○ super-class: Social Networking platforms.

Social Networking and related classes

- **Location-Based Social Networking platforms / services**.
  - ○ example: Foursquare [fou, 2012; in (2)].
  - ○ emphasis on location as contextual content element.
  - ○ overlaps strongly with / is subclass of: Mobile Social Networking platforms.

- **Professional Social Networking platforms**.
  - ○ examples: Xing [xin, 2012; in (2)], LinkedIn [lin, 2012; in (2)].
  - ○ offers a comparable spectrum of services to other general SN platforms (messaging, profile management, social network management, awareness etc.).
  - ○ super-class: Social Networking platforms; most of the content is textual.
  - ○ goals: establish or maintain professional contacts, self-presentation of professional identity, skills, etc.

Social Networking and related classes

- **Company Community / Social Networking platforms**.
  - ○ examples: IBM's SocialBlue [soc, 2012; in(2)] (formerly called Beehive).
  - ○ similar to Social Networking and community platforms, targeted to members of large companies.
  - ○ goals of communication: maintain and expand social network within the company (including self-presentation), expert-finding (see e.g. [Nauerz and Groh, 2008; in (2)]), yellow pages function.
  - ○ companies may also use Blogs and Wikis as instruments of knowledge management or project management [Koch and Richter, 2009; in (2)].
  - ○ overlaps with: Social Networking and community platforms; slightly overlaps with: Open Innovation platforms.

Social Networking and related classes

- **Partner Finding platforms**
  - ○ example: Friendscout24 [fri, 2012; in (2)].
  - ○ comparable spectrum of services to SN platforms, with less focus on social network management.
  - ○ overlaps with: Social Networking platforms.
  - ○ most important communication form: 1:1; directed; non-anonymous; non-threaded; textual + photo; discrete transfer; non-commercial; (e.g. messaging, chat); also 1:n; indirect (profile related services and service elements).
  - ○ goal: finding a partner

Social Networking and related classes

- **Community platforms**
  - comparable to Social Networking platforms, supporting smaller and more specialized groups of users (in terms of interests or location). Examples: Gothic.net [got, 2012], Yelp [yel,2012] meta-community platform.
  - overlaps with: Social Networking platforms, Open Innovation platforms

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goal oriented classes

- **Altruistic Community platforms**
  - examples:
    - Utopia [uto, 2012; in (2)]: support sustainable consumption,
    - Causes [cau, 2012; in (2)]: metacommunity platform for communities focusing on social issues,
    - IndieGoGo [ind, 2012; in (2)]: crowd funding
  - spectrum of services and communication forms comparable to other Community platforms.
  - superclass: community platforms
  - overlaps with: Social Networking platforms, Political Community platforms.

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goal oriented classes

- **Political Community platforms**
  - example: Occupy movement platforms (e.g. Occupy Wallstreet [occ, 2012; in (2)]), Wikileaks [wik, 2012c; in (2)].
  - overlaps with: altruistic community platforms.
  - Wikileaks: may not be a typical Social Media service since not as open for uncontrolled user-generated content; relies on whistleblowers
  - implements a special form of 1:n, anonymous, indirect, textual form of communication
  - goal: function as control instance for organizations, governments and companies via leaking classified information documenting unethical behavior.

- **Knowledge Codification services**
  - example: Wikipedia;
  - may be listed here as well

classes with an emphasis on content

- **Events services / platforms**
  - example: Eventful [eve, 2012; in (2)] (users can upload, comment, demand, state planned attendance for events).
  - most important communication forms: 1:n, n:m; indirect; anonymous and non-anonymous; non-threaded; contextual (spatio-temporal), textual + photo; mobile, desktop, or laptop; discrete transfer; non-commercial;
  - goals: awareness, information in view of events.
  - superclass: Awareness services.
  - slightly overlaps with: Microblogging; overlaps with: News services.

classes with an emphasis on content

- **News**
  - example: Digg [dig, 2012; in (2)] (users can submit and rate news articles).
  - overlaps with: events services.
  - superclass: Information services
  - most important communication forms: 1:n, n:m; indirect; anonymous and non-anonymous; non-threaded; textual, contextual (user-item relations); desktop or laptop; discrete transfer; non-commercial
  - goals: awareness, information.

classes with an emphasis on content

- **Social Search**
  - examples: `Google Search, plus Your World' [plu, 2012; in (2)]; Facebook Graph Search
  - incorporate social context into search
  - most important communication form: n:m; indirect; anonymous; non-threaded; contextual (social context (social relations), ratings); desktop or laptop; discrete transfer; non-commercial
  - goals: provide new useful modes for web search
  - overlaps with: News (via including collaborative ratings into search results), Information services, Recommender services.

classes with an emphasis on content

- **Knowledge Codification** services
  - example: Wikipedia
  - example Social Software: Web-Protege [Tudorache et al., 2008; in (2)] for collaborative ontology development.
  - heavily overlaps with: Wikis. overlaps slightly with: Document Management.
  - most important communication form: n:m; indirect; anonymous; non-threaded; textual and formal formats for knowledge representation (e.g. Semantic Web [Antoniou and Van Harmelen, 2004; (2)]); desktop or laptop; discrete transfer; non-commercial
  - goals: codify knowledge (e.g. in the form of encyclopedias or ontologies)
  - may also be listed under `goal oriented classes' and `collaboration oriented classes'.

classes with an emphasis on content

- ● **Document Management** services.

  - ○ example: Google Docs [goo, 2012a; in (2)]: sharing and editing documents.
  - ○ overlaps with: Information services, Content Sharing.
  - ○ may also be listed under `Collaboration oriented classes'
  - ○ most important communication forms: 1:n, n:m; indirect; non-anonymous; non-threaded; textual; desktop or laptop; discrete transfer; non-commercial
  - ○ goals: distributed document management.

classes with an emphasis on content
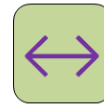
- ● **Content Sharing** services.

  - ○ content (own or other) is shared `as is' (no editing as in Wikis)
  - ○ subclasses: File, Video, Photo, Presentation Sharing, Social Bookmarking, Blogs.
  - ○ superclass: Information services
  - ○ typical form of communication: 1:n; indirect; anonymous and non-anonymous; non-threaded; diverse range of content types; desktop or laptop; discrete transfer and streaming; non-commercial
  - ○ goals: diverse.