

Néhány gondolat a tartalomszolgáltatás szabályozásáról

(Dömölki Bálint, 2001 május 24)

1. A "tartalomszolgáltatás szabályozása" körüli anyagok nagy részénél (így a Kódexnél is) problematikusnak lehet tekinteni azt, hogy amivel foglalkoznak, az leginkább a
 - "tartalomszolgáltatás szabályozása"
(az is elsősorban a politikai, publicisztikai „tartalom” szempontjából)és viszonylag kevés szó esik arról, amit úgy lehetne nevezni, hogy
 - "tartalomszolgáltatás szabályozása"
(azaz a „tartalom”-nak a felhasználóhoz való eljuttatására vonatkozó játékszabályokról)
2. Mindkét vonatkozásban úgy kellene a dologhoz hozzáállni, hogy megkeressük a társadalom-gazdaság-jogrendben már meglévő "szabályozásokat" (sajtó-média-vélemény... ill. közszolgáltatások) és az azokban már többé-kevésbé konszenzusosan meglévő elvek megismétlése nélkül, csak azokkal az eltérésekkel foglalkozni, amik az Internet specifikumaiból adódnak, de azokkal azután részletesen és szakszerűen.

Ilyen specifikumok bőségesen vannak (pl. tömegesség, anonimitás, interaktivitás, nemzetköziség stb., a teljesség igénye nélkül). Itt egy nagyon alapos, szisztematikus elemzésre lenne szükség, csak a specifikumokra szorítkozva.

3. A tartalommal kapcsolatos szabályozásokat az alábbiak szerint is át lehet tekinteni:
 - annak szabályozásával hogy mi legyen (vagy ne legyen!) a tartalom "milyensége", sokat foglalkozik mindenki, beleértve az ezzel kapcsolatos vélemény szabadsági, személyiségi jogi stb. kérdéseket
 - annak szabályozásával, hogy ez a "tartalom" milyen technikai eszközökön - és üzleti modelleken! - keresztül, milyen hatékonysággal jut el technikailag a felhasználóhoz, foglalkozik a telecom szabályozás egész világa, beleértve a QoS (Quality of Service) feltételeket, ill. ezeknek az Internet világra való kiterjesztéseit
 - ami a kettő között van, az egy meglehetősen szürke zóna és arról szól, hogy a - helyes vagy helytelen - tartalom milyen módon van "becsomagolva" és a felhasználóhoz - számára használható módon ("usability") - eljuttatva. Ez tehát a tartalom "minősége" (Quality of Content, QoC) lenne, amiről ma még viszonylag keveset lehet hallani.

A tartalom – ilyen értelemben vett – minőségének meghatározására vonatkozó kiinduló gondolatok a mellékelt két angol nyelvű anyagban találhatóak.

Towards a definition of the Quality of Content
(Abstract of a proposal for research topic)

In many e-commerce applications **value** is incorporated in some kind of "**content**". Either the "product", (i.e. the subject of the trade) is something intangible appearing in the form of information (i.e. content) on the Internet, or such information is an important part of the product itself (e.g. its instructions to use) or that of the trading process (catalogs, product descriptions etc.) A specific – rapidly increasing – case of trading with content is giving it away "free of charge" in exchange of making the user to watch advertisements. In all cases the "**quality**" of such content-information makes an important factor of the user satisfaction in connection with e-commerce systems.

Any content on the Internet should be regarded not on its own, but together with the "**delivery chain**" bringing the content to its end-user. Most important elements of this chain are

- A. **creation** of the subject matter of the content.
- B. its organization and **presentation** (in electronic form) on the Internet,
- C. **transmission** to the user(s) by telecom- and Internet service providers,
- D. **interpretation**, understanding and utilization of the received information.

Analyzing the measurability of the "quality" of these elements, we can see, that

- while A. is something which usually can be qualified by means of very **subjective** considerations only (like the literary value of a book),
- in case of B. there might be **more objective** criteria of being "good" or "bad" (like the grammatical correctness and typographical layout of the same book).
- On the other hand, for C. there are **well defined** measurement criteria (bandwidth, availability, error rates etc.) and the Quality of Service (QoS) concept of telecom is being extended to Internet services as well.
- Finally, for D. the objective is to **minimize** the efforts the end-user needs to spend in order to utilize the information received from the Internet. This, however, may depend very much on the properties of the user itself: his/her previous knowledge (in the given subject area), skills etc.

From this model we can conclude, that even in the case of a well-created, valuable content (A) and high-level data transmission services (C), the real value of the content may still depend on the easiness of its understanding/utilization by the target group of end-users (D), which can be very much influenced by the organization/presentation (B) of the information. So in order to evaluate the usefulness of a content for a given purpose, we have to introduce some kind of measurement of the "goodness" of the presentation of content (with respect to a target group of users with given characteristics). On the analogy of the well defined concept of Quality of Service, this can be named "Quality of Content" (QoC).

We can see, that a great deal of the quality criteria for presentation of the information (on the Internet) can be defined in a more-or-less “**subject-independent**” way. Here are some examples:

1. The most trivial (and most annoying) formal error of a Web-page can be the existence of incorrect external links (going to nowhere).
2. A very common phenomenon is the lack (or non-consistent use) of “time stamps”. This means not only showing “last modified” date on each and every Web page, but also giving information about the “age” of referred pages (e.g. in case of a list of links).
3. Organization of information on Web-pages; logical system (or the lack of it) of references between pages etc.
4. Usability of interactive elements, e.g. ability of the user to complete forms (enough space for information, completeness of choice menus etc.)
5. Understandability of the information, usage of terms known to the given class of users (either by presumed knowledge or from Web pages previously seen.)
6. Savings on the phone bill of the users (in some countries telecom tariffs can be very high!): avoiding long pages, placing links to suitable places, providing alternatives to images etc.
7. Providing – really – intelligent search possibilities, avoiding large amounts of irrelevant answers.
8. Consistency of the content, avoiding contradictory information on the same page or on different pages (coming from possibly different – but not disclosed – dates).
9. Adaptation to different end-user devices (e.g. WAP).

This list can be continued and the items elaborated in more detail (with examples).

The main objective of the proposed research activity would be to create a more-or less complete “**inventory**” of such usability features of Web-based content, together with some **criteria** for the level of quality associated with such features. Methods to evaluate Web pages against these criteria should also be developed, at least in the form of check-lists or – whenever possible – **software tools** for verification/evaluation (or even enforcement) of some criteria.

In this way we can arrive to some kind of definition of the Quality of Content (in the sense described above). Such a notion can be used for several purposes, e.g.:

- a) standards and/or best practices for Web pages;
- b) regulations (e.g. customer protection, or rules to publish information for the public);
- c) rating of Web pages (in addition to the present, rather subjective “Top xx”-type stamps);
- d) auditing services for Web pages (like those certifying the handling of personal data in a Web-based service);
- e) measuring the advertisement value of a Web page, etc.

The proposed activity would require real research into Web-based technologies, together with many practical considerations and experiences.

Towards a definition of the Quality of Content

Balint Domolki
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New Business Paradigms for the e-Economy

1

Content is Value in e-commerce

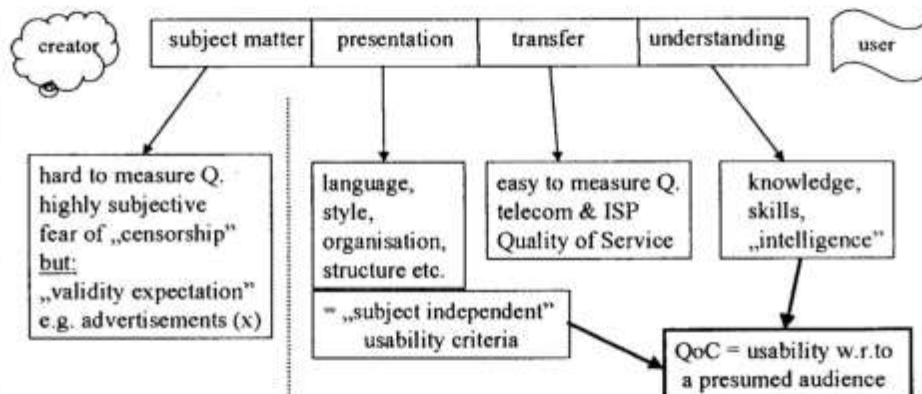
- intangible goods itself
 - databases, information services etc.
- part of the goods to be traded
 - descriptions, instructions to use etc.
- component of the trading process
 - catalogues, e-markets, e-procurement etc.
- advertisement media
 - “free of charge” content

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2

Real value of content depends on the „delivery chain”



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3

Some assumptions about the user

- English language, computer literacy
 - e.g. hidden error messages of the browser
- (US) culture
 - US academic background of the Internet
 - different telecom costs
- previous knowledge
 - e.g. about the subject matter
 - pages viewed not in the same order as written

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4

“User “ is not necessarily human!

- software agents !
- “extended delivery chain” ?
- easier to tailor to (human) user’s needs, but
- more rigid requirements about formal correctness of the content
- different or dual-purpose content ?

Some usability issues

CLASSES:

- completeness → 1. incorrect references, links
→ 2. missing time-stamps
- structural → 3. bad organisation
→ 4. unusable forms
- semantical → 5. unknown terms
→ 6. high telecom usage
- manipulative → 7. unintelligent search
→ 8. inconsistent information

Example of an “intelligent” search

WEATHER SEARCH

Enter City Name or Zip Code

Weather Search Results

We found 377 cities matching your search. Cities 1 through 20 are displayed.

Adams Center (Watertown)	New York United States of America
Adams Center (Fort Drum)	New York United States of America
Albany	New York United States of America

Research objectives

- inventory of issues influencing QoC
- checklists
- scientific models
- quantification ideas
- software tools
 - measurement
 - enforcing good quality
- ...

Some application possibilities

- definition of standards and best practices
- use in regulations
 - e.g. customer protection issues
- rating of Web pages
 - storing usability information in hidden part of the Web page (cf. PICS)
- auditing of Web-based information services
- measuring advertisement value of content

Closing remarks

- more questions than answers !
- most problems exist in non-Internet world too
 - need for a “pragmatic theory of information”
 - Internet “amplifies” the problems!
- “psychological barrier”
 - content is prepared by those who know ...
 - those who do not understand, reluctant to admit...
- needed: combining theory (AI, HCI, NL analysis ...) with pragmatic issues