

The problems with(in) online communities

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Online communities have become relevant actors in terms of standardization

Because they create and « promote » standards (e.g. open-source → « *software generics* » Dalle & Kott 2002)

Also because various forms of standards & norms are now at least partially discussed and agreed upon online, in a « community way », both in pure-play communities such as open-source software and in various other contexts:

“ The IETF is more a community than a hierarchical organization.” + today’s presentations

Now...

What's an « online community », exactly?

It has hierarchical features, sometimes rather strong, and generally a governance structure.

It is also largely decentralized and relies explicitly on decentralized decision making.

An online community is an hybrid form of organization, « neither market nor hierarchy ».

Wait a minute - Would that mean that an online community *is* an organization?

Yes, indeed. And our point here is precisely this:

Although online communities have become relevant entities in many aspects of economic life, including standardization,

We continue to consider them as weird ‘entities’ instead of analyzing them as particular forms of organizations,

Which unfortunately prevents us to address some of the important issues that their emergence raises.

In many respects, there is still a lot of *naïveté* in the way economic actors are now dealing with online communities.

« Peer production », indeed (Benkler)...

But how do peers actually produce ?

Let me take an example that has nothing to do with
standardization: Wikipedia

We can chastise Wikipedia, and regret that it exists

That won't change nothing

It'll still be around

Our kids will go on using it to do their homework, based
perhaps on poor quality content

Are we powerless then?

No.

We can observe & try to understand what's going on *within* Wikipedia: how the Wikipedia community produces online content, what are the drivers of its quality, how the community has organized itself and is trying to implement new processes to upgrade the quality of its content...

We can try and analyze the Wikipedia community as an organization, detect dysfunctionments and make them public, suggest improvements (den Besten & Dalle, Industry & Innovation, 2008).

- SimpleWiki



The **English** used in this article or section may not be easy for everybody to understand.

You can help Wikipedia by [making this page or section simpler](#).

- Wikipedia



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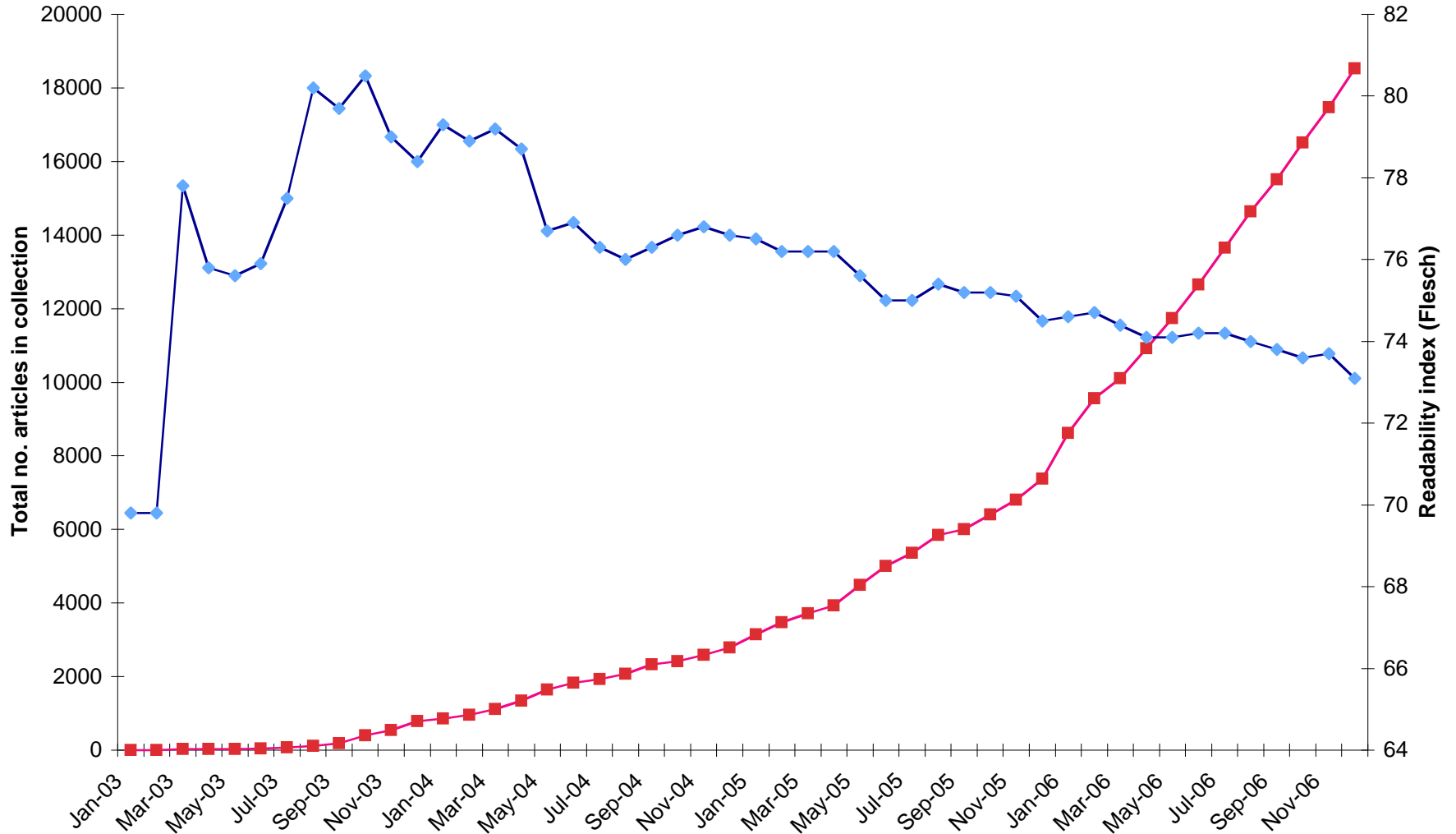
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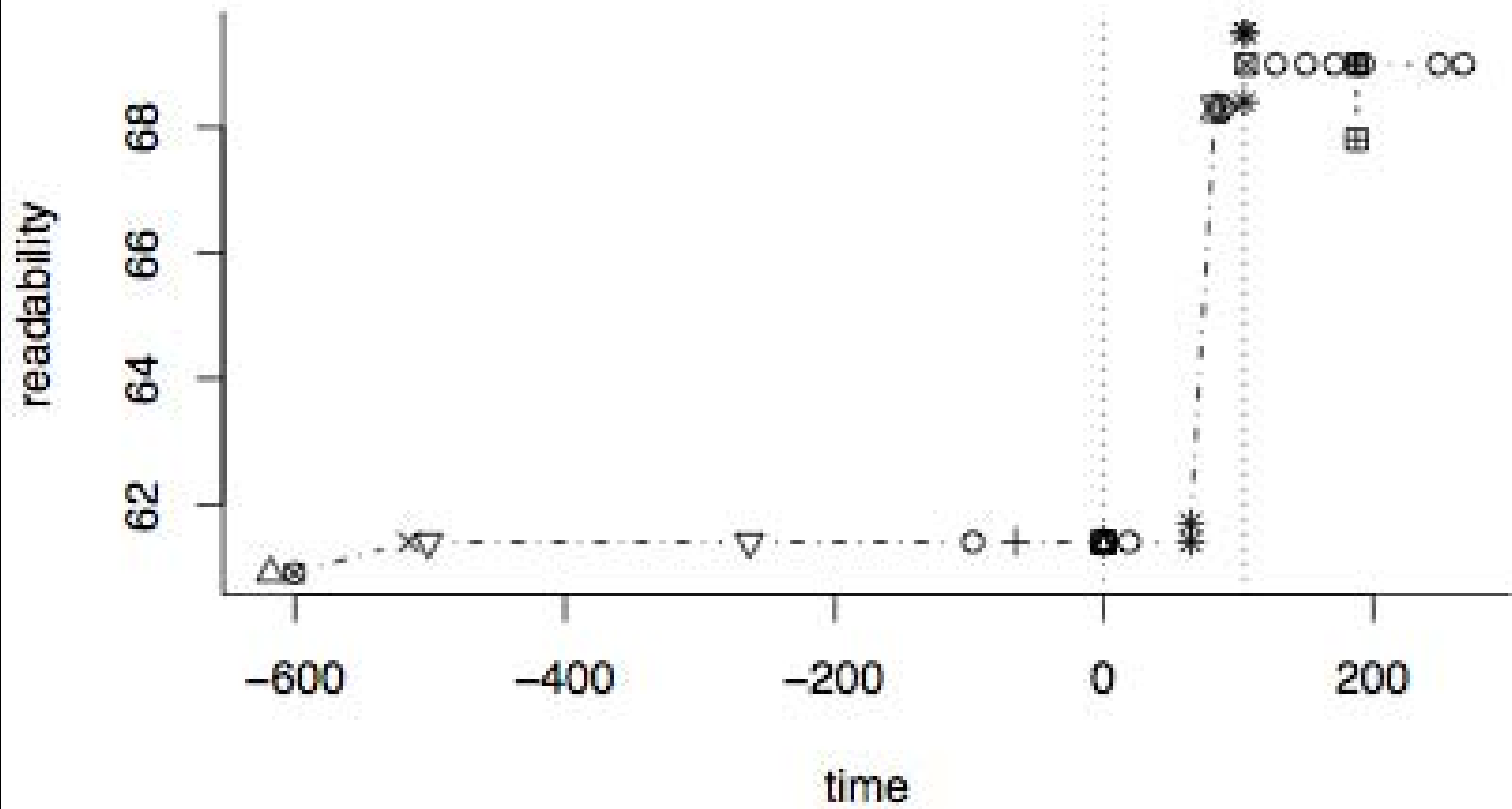
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Evolution of Simple Wikipedia; 2003 - 2006

Articles Readability





Actually fits well with our general ‘stigmergic’ theory of communities as particular forms of organizations (Dalle & David, 2005)

The members of those organizations are able to observe the ‘code’ or ‘construct’ in its entirety, decentralized coordination within the community is influenced by signs which characterize its production →

A form of self-organization called « stigmergy » by theoreticians (στιγμα / εργον)

→ More adaptable organizations – “*SOFTS*” ? (Den Besten, Dalle & Galia, Information Economics & Policy, 2008)

Max number of maintainers per month

| | Adj. R2 | LOCs | McCabe | Halstead | Functions | Youth |
|--------------|---------|--------------------|--------------------|--------------------|--------------------|--------------------|
| Apache | 0.41 | | (+) ^x | | (+) ^{***} | (-) ^{***} |
| CCVS | 0.52 | (+) ^{***} | (+) [*] | (-) ^{***} | | (-) ^{***} |
| Gaim | 0.46 | | (+) ^{**} | | (+) ^x | (-) ^{***} |
| GCC | 0.56 | (+) ^{***} | (+) ^{***} | (-) ^{***} | (+) ^{***} | |
| Ghostscript | 0.58 | (-) ^{***} | | (+) ^{***} | | (-) ^{***} |
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| NetBSD | 0.30 | (+) ^{***} | (+) ^{***} | (-) [*] | | (-) ^{***} |
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| PostgreSQL | 0.37 | (+) ^{***} | (+) ^x | (-) ^{***} | | (-) ^{***} |
| Python | 0.56 | (+) ^{***} | | (-) ^{***} | | (-) ^{***} |
| ALL | 0.38 | (+) ^{***} | (+) ^{***} | (-) ^{***} | (+) ^{***} | (-) ^{***} |
| ALL WEIGHTED | 0.34 | (+) ^{***} | (+) ^{***} | (-) ^{***} | (+) ^{***} | (-) ^{***} |

Confidence levels: *** < 0.0001 / ** < 0.001 / * < 0.01 / x < 0.05 / \$ < 0.10

Now, what about standardization?

Thinking about communities as organizations – softs –, the problem is then less *with* the community than *within* the community →

How is coordination done? What about governance structures?
What about the division of online labor? What about distributed, decentralized problem-solving?

All of these organizational features will affect the nature of standards that could emerge

In this respect, we've started studying the emergent processes that tend to characterize *problem-solving* in softs, upon which the standardization capabilities of softs necessarily rest.

Is problem-solving in softs affected / influenced / biased by the peculiar nature of these organizations?

Softs:

Multi-layered organizations (« onion model ») based on a division of labor / online roles:

→ Many different organizational issues

→ Importance & influence of status

Firefox Bugzilla data: >30000 bugs, all eventually FIXED, feature requests removed → use of survival analysis to study the influence of several covariables including controls.

NEW vs. UNCONFIRMED bugs → The CanConfirm « Privilege »

Gamma fit, left & right censored: [2;300] days

Variable InitialStatusWasNew *negative and significant*

→ Even when studying tpssol (i.e. from the day all bugs are NEW)

Status within the community affects problem-solving

For NEW bugs, a very large number of
DUPLICATES tends to speed up the solving
processes, controlling for other variables

Stigmergy mediated by *attention*.

Problem-Solving within online communities is affected by the layered organizational structure of softs.

What does that say of their ability to develop standards?

Not that much yet, all the more so since we've put aside *commercial* status...

Would commercial 'status' similarly matter?

→ A *very* interesting question, open to investigations!

There is still a lot of *naïveté* in the way economic actors deal with online communities now, in many respects.

Among other things, we don't know much yet about standardization issues, all the more so since we are not really able to assess yet how the (commercial) status of community members could affect problem-solving.

We don't, but I really believe we should – perhaps already in the making ?

Merci de votre attention.