

General Comments

Notation

I suspect we should say we have a Transmail item T with a set of properties

{To_list, cc_list, bcc_list, job_code, sender, priority, ...}

A set of transmails would then have the notation $\{T_1 .. T_m\}$.

We perhaps should also introduce a the set of people as $\{P_1 .. P_k\}$. Then we start with the *incoming relevance* to recipient P_k of Transmail T_m as $R^I_{k}(T_m)$. I think relevances of a given transmail are always relative to the recipient, in which case, we could perhaps use the notation $R^I_{km}(t)$, as I think we could then save the bracket notation for expressing dependencies in the algebra, of which time is clearly one. Actually, I think making time explicit in time-dependent factors will help with some of the complexity issues.

Response: An important point is made here, though the solutuion offered is not quite consistent. Actually, in my original notation R and I are numbers, whereas T and P are not. Moreover, time is only one of the factors involved, so there is no reason to pick it out. It will only be noted where it is of the essence of what is being said in the formulae. I am trying in the revised version with super and subscripts to indicate which sender, recipient and mail value is involved, and reserve the large letters for actual numbers (or functions which produce numbers) in the system,.

Value ranges

In assigning values, it's perhaps more usual to use a range $0 \leq x \leq 1$, rather than $0 < x < 100$, as in the latter case you end up with complications in comparing results which are not calculated with exactly the same number of factors.

Response: From the point of view of the mathematicians and program writers it makes no difference, though I think that if we are asking users to (say) assess relevance or important it will be easier for most non-mathematicians to deal with 0-100.

Importance

With regard to notation, I'm not sure that the transmail entity reference (identified by superscript m) is relevant – Global Importance, I_g , depends, say, on the person's position or an org chart, and by its nature is absolute in some sense - although the org could find ways of changing the number with time, but that number would be the same for all TransMails and all recipients – although you seem to imply in 9.1.5 that the global importance is a function of the recipient. This is just an issue of definition.

Likewise, values for "local" Importance of a sender are independent of the particular TransMail being sent. They should, however, probably have a notation that includes the sender and recipient, so the local importance of all mail (at time t) from sender P_s to recipient P_k is $I^{sk}_l(t)$. This then highlights an issue of dealing with local importance values of earlier mails (whose value of local importance would be $I^{sk}_l(t_0)$). Likewise $I_g(t)$, although there is an assumption that the rate of change in value of I_g would be much slower than that of I^{sk}_l and so could perhaps be treated as a constant for the purposes of calculating the impact of earlier mails.

So in your points about convergence of Importance in 9.1.5, the point is starting from an arbitrary $I_g(t=0)$, $I_g(t)$ will converge to I_g^Ω ($I_g(t) \rightarrow I_g^\Omega$ for sufficiently large t).

The factors D and C may also need a look at with regard to time and person dependencies.

Number of recipients

I think your N_m could be modified for the purposes of calculating relevance of a given TransMail. What is probably more interesting is the number of recipients that are in P_k 's

“collaborative”, compared to the total number of recipients – “collaborative” being the set of local important senders of sufficient importance, or the set of all prior senders, weighted by time and frequency of correspondence.

All this is fine, though at this stage I was trying only to give some kind of overview of the direction it needs to go.

Other comments

p63 “These are placed into suitable functions which are between 0 and 100”,
perhaps should read

“These are placed into suitable functions **whose resultant value** is between 0 and 1”

Yes – that is what was meant though I have changed it.

EXHIBIT 2050

metadata slip sheet

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LastModifiedDate	5/17/2005 5:35 PM
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