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A case of consequences of Lotus Notes

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Higher-order effects of groupware: A case of consequences of Lotus Notes

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ABSTRACT

Companies are installing groupware to gain more efficiency. This article is based on a research done at a global leasing company to the high-order effects of groupware. The groupware was used by an international european team in the company developping a new database. The major effects of using the groupware were more responsibility for the employees because they had acces to much more information. Groupware supports the organizational change from a local oriented company to a global company. By creating a group memory and a problem/solution database better knowledge management and co-ordination was possible resulting in a higher quality of work. Because of the succes groupware is now installed throughout the whole company as a standard workplace environment.

Keywords: Groupware, Organizational change, Knowledge management

1. INTRODUCTION

People never work alone. In almost every work situation one is part of, and comes in contact with, several groups. These days more and more (critical) decisions are being made by (small) groups (Jelassi and Beauclair, 1987). Several large software companies saw a new market and developed computer programs in order to enable these groups to communicate more efficiently and effectively. Among these programs there are big differences, but in general we call them groupware. One of the oldest, but also most useful, definitions is from Peter and Trudy Johnson-Lenz (1978): "a whole system of intentional group processes plus software to support them". This definition shows that groupware is not just software, but also consists of rules and procedures how to use this software. This means that in order to understand what groupware does, or tries to do, it is useful to look at the processes when working in a group. Groupware will have to deal with some of these processes and may want to eliminate some

and emphasise some others. Furthermore, the above definition applies to a range of software, from programs that are relatively simple (e.g. calendering programs) up to programs that allow people to work closely together on one report.

This paper looks at the consequences of using Lotus Notes as a groupware system in an organisation. More precisely it looks at the unexpected and unintended consequences it has on the people, the teams, and the organisation (in its environment) as a whole. These unexpected and unintended effects are the so-called higher order effects.

To give a better insight into what groupware must support the second section deals with several aspects of working in a group. The third section defines what groupware is and what it is used for. In section four the higher order effects of implementing Lotus Notes as a groupware system are examined. This section reports the empirical observations of a group using Lotus Notes in a Dutch holding company. The fifth and final section consists of the conclusion of the paper and possibly some recommendations.

Research Design

The author spent six months at the automation department of "DutchHold"; a Dutch holding company with subsidiaries in almost every European country. This company uses Lotus Notes as communication standard within the holding and is in the process of implementing Lotus Notes at all of her subsidiaries. The assignment of the author was to (re)write the system guide of Lotus Notes, so the author had a pretty close view on the company-wide implementation of a groupware system.

The author was a (temporary) member of the automation department that was in the process of redesigning the main information system of the entire company. For this project they put a team together of ten people from subsidiaries in different countries, two people from the holding, and four facilitators/consultants.

The author shared a large office with the members of the project team. The team consisted of two groups. One group of IT professionals designing the new core database, and a group of professionals from different departments identifying the business processes. The members of the project team resided an average of three days per week at the holding office, and the rest of the week at their own office at the different subsidiaries. For the consultants/facilitators it was the only office, thus making it the central office for this project. The team used Lotus

Notes as the repository for their documents, as a way to distribute their meeting agenda and meeting minutes, and as a way to keep in contact with their holding office.

Besides field observation of the on-going activities related to the use of Lotus Notes several interviews were conducted. Only a few of the interviews were identified as real interview sessions, the most had the form of ordinary conversation, or lunch chit-chat. All the members of the project team knew that the author was conducting research and that their use of Notes was being observed. All of the members were helpful in answering questions and giving continuous feedback on the observations. This also resulted in several discussions about the use of Notes.

2. WORKING IN A GROUP

There are many definitions of what a group is. These definitions usually refer to "two or more individuals", "share a common fate", and "interdependence or interaction". A very basic definition is that of Shaw (198 1): "Two or more persons who are interacting with one another in such a manner that each person influences and is influenced by each other person". But since groupware clearly identifies groups, and usually even demands a structure for that group, in the case of groupware the definition of Rijsman cited in Jansen (1994) is the most appropriate: "a team or group is a collection of people who, are in contact with each other, are aware of each other, see themselves as a group, and have a clear internal structure".

There are formal and informal groups and/or teams. The formal groups are usually formed by the management of an organisation to achieve a specific goal with given means and within a certain time. They are formed "top-down".

The informal groups usually come to exist to fulfil a basic psychological need for contact, to be a part of something, for recognition, etc. They are formed "bottom-up". An important function of a team is functioning as an intermediate between the "small" individual and the "big" organisation.

For effective long term teams it is crucial that the group is not only a formal team, but also an informal group (Jansen, 1994). But that will almost always happen more or less automatically.

Within a groupware system there are usually formal groups needed to determine the access level of persons. If this is not the case then the users of a particular function or part of the

system will very probably become an informal group, because they will interact often This also means that it is very likely that a person is part of more than one group.

The next relevant question to ask is; what does a group do? Gray (1987) states that group meetings are characterised by the following activities and processes:

The meetings are a joint activity, engaged in by a group of people of equal or near equal status, typically involving 5 to 20 individuals.

The activity as well as its outputs are intellectual in nature.

The product depends in an essential way on the knowledge, opinions, and judgements of its participants.

Differences in opinion are settled either by fiat by the ranking person present or, more often, by negotiation or arbitration. The results lead to action within the organisation.

The groups are always busy with retrieving (or generating) information, sharing information among members, or using information to reach a consensus or a decision.

A group or team can be supported by the use of information technology. This support can occur on three levels: individual level, co-ordination level, and group dynamics level (Briggs and Nunamaker, 1994).

Technological support on the individual level is achieved by using stand-alone tools like spreadsheets, word processors, etc. to become more productive. Any gains in the team productivity are simply the sum of the gains in individual productivity.

The second level of team support is the co-ordination level: teams use network information technology to keep track of team resources and to keep the activities of the team members synchronised. Team databases, e-mail, etc. are examples of co-ordination technology. Gains at this level go beyond the sum of individual productivity.

The third level of team is the group dynamics level. Teams use technology to solve some of the problems of working in a group. Electronic meeting systems, group decision support systems and video conferencing systems are examples of these technologies. Gains at this level also go beyond the sum of individual productivity.

3. GROUPWARE

Groupware is an umbrella term for the technologies that support person-to-person collaboration (Coleman and Khanna, 1995). This means that groupware can be anything from an email system, to an electronic meeting system, to a workflow management system. There are many definitions of groupware. One of the oldest, and most common, definitions is from Peter and Trudy Johnson-Lenz (1978): "a whole system of intentional group processes plus software to support them". This definition shows that groupware is not just software, but it also consists of rules and procedures how and when to use this software. So, certain software is called groupware, but that actually says very little about the software, and a lot about the way of working; the group that is using this software has agreed on certain rules and procedures about the way they work together.

Groupware gives support to teams at the co-ordination level and at the group dynamics level. Dale (1994) categorises the advantages of using groupware:

An increase in the productivity. Workers will be able to do more, with fewer people, more quickly.

Communications become richer, easier, and more frequent. This will lead to better teamwork and an improved organisation.

Effects on the structure of the organisation. Groupware can lead to a breakdown of hierarchies, and levels of management will be decreased.

Groupware can have one or more functions that support the group in working together. Coleman and Khanna (1995) place these functions in categories (that are also used for the annual Groupware Awards):

Electronic Mail and Messaging (including Group Calendering and Scheduling); Includes messaging infrastructures, email systems, and group calendering and scheduling systems.

Conferencing; Includes Collaborative and Discussion Databases, Electronic Conferencing, and Bulletin Boards.

Group Decision Support Systems; Includes Electronic Meeting Systems, Audio and Video Conferencing.

Group Document Handling; Includes Group Editing, Shared Screen Editing Work, Group Document and Image Management, and Document Databases.

Workflow; Includes Workflow Process Diagramming and Analysis Tools, Workflow Enactment Engines, Electronic Forms Routing Products.

Workgroup Utilities and Development Tools; Includes operating system-like functions, and a programming environment.

Groupware Frameworks; These are products with functions that help co-ordinate other groupware and desktop products.

Groupware Services; Includes services like Planning and Implementation, Application Development, Training and Maintenance, Consulting, etc.

Groupware Applications; Includes specialised applications to be placed in an other groupware framework.

There is a lot of software that you can place in one of these categories, or to which the definition of groupware applies. But there are only a few products that support several of these functions in one software package. Lotus Notes has claimed to be the standard in groupware. It was, and still is the most complete groupware package available. Like most other groupware systems, Lotus Notes is not a substitute for the office suite, but an addition to it. The user should still have an ordinary word processor, spreadsheet program, and presentation program available (although Notes could perform some of the tasks of these programs).

Lotus delivers several database templates with Lotus Notes. With these templates one can very simply make a new database that is focussed on a specific purpose. But it is also possible to develop your own database applications in Notes. These applications can be as simple or as complicated as the developer wants them to be.

There are roughly four main application types (Liberman, 1993):

Tracking applications; are those that are highly interactive, have many users and are continually updated.

Broadcast applications; are those that are made available to a large audience and where often information is time-critical but remains statistic thereafter.

Reference applications; similar to broadcast applications are used as document libraries.

Discussion applications; support group communications. They function like electronic bulletin boards where users address new topics and respond to others. They are focused around common interests.

4. EFFECTS OF' USING LOTUS NOTES

Background

The director of automation and one of his managers first saw Lotus Notes demonstrated at an IT fair. And after talking to people from other companies (e.g. Arthur Andersen), and to one of the people who now worked for DutchHold, but had used Notes in his former company, they decided that DutchHold could very well use this product. They felt that Notes could solve some of the communication problems that DutchHold was having in and among the subsidiaries. There was no written plan to identify specifically what Notes should, or should not do. It was first installed at the holding office and at one Dutch subsidiary. The organisation is still in the process of installing it at all of the subsidiaries, but Notes is available for the most of them.

Lotus Notes was acquired to do one thing. It had to solve the communication problems by taking care of the distribution of information and knowledge that was not distributed by an other information system. Apart from the different systems that the subsidiaries used they should all have Notes to be able to exchange and store information in one way and in one uniform system. In that way Notes should become a "virtual meeting place" for the exchange of information.

Remote working

A feature that was considered to be very helpful in solving the communication problems is that Notes also allows employees to work from any location. As long as the computer is set up for Notes, and a phone line is available (or another connection), the employees can work from virtually any place. And DutchHold has a large number of people that spend some time working for an other subsidiary but that do need to stay in touch with their own organisational unit.

This usually means that sales representatives, or consultants in the case of the automation department, are provided with a laptop computer (and sometimes a mobile phone) to enable them to work at the clients' workplace. But the possibility for a remote connection does not stop at employees that are often "on the road". Employees that are assigned to a certain office can also use this technology. They can set up their own personal computer at home to act identical to the laptops of the sales representatives. If they do so, they can work at home. This does not mean that they do not have to come to the office anymore, since usually their job requires them to be at the office at specific times. But it does mean that occasionally they can work at home (even at other hours of the day).

The following effects are all higher-order effects in this case since they were not intended, but do occur.

More responsibility for the employees

The users must not only put their documents in Notes, but they must also look into it for the work of others. If a person needs to have information from others he/she must no longer contact this person and ask for this information, but he/she must look it up in the Notes. This is possible because Notes puts users into multiple groups. So that they always share a group, at a certain level, with everybody with whom they usually interact. At DutchHold the retrieving of other employees' reports/information only happens within project groups. It does not happen through a whole organisational unit, or the whole organisation. The director of automation would like that to happen in the future, but states that they are "a long way from that point".

Managers still have to "open doors" for people that need access to certain information outside the team. But they have to do so much less often than they used to, because the people in the group got access to certain sorts of information when the team was formed.

The larger responsibility of employees is related to the access to more information, and the transformation of the organisation. Employees in a team get to see more data, must select the data they need, and need contacts for the information that they do not have.

Access to more information

Notes can give access to more information because it allows concurrent access to data, and it allows data to be linked to other data. One can for instance use hypertext, links to other documents, views that sort the documents in a specific way, or manage access to documents in different ways. This means that reports that were distributed on paper can now be distributed electronically. Moreover one can give certain employees only access to certain parts of the report or hide certain parts from them. So information can be distributed in one design, while different people see it in a different way.

Notes gives a company the opportunity to store information in a way that only those that are authorised can access it. This enables the company to distribute more sensitive information, since the company can be sure that it can only be accessed by those that authorised. And when the employees are certain that only those people who are authorised can see their work, they are more willing to put there work in the groupware system. Once the company has established who has access to what sort of information, more of that sort of information can be made available to those people.

Notes helps to change the organisation

Notes was not acquired to help the organisation transform to a network organisation, but is of great help in this process. The technology gives the leeway to work differently, a phenomenon often obtaining in technology in general. If Notes is used successfully, as it is in DutchHold, the users will fall into a different work routine. They will perform their tasks in a different way. In a way, they have to because the groupware system makes them "get" some of the information they need instead of it being delivered in an "in box" on the desk. And at the same time they have access to more information, so they must consider more carefully what information they do need, and what information they do not need to perform their tasks.

Notes puts more responsibilities with the employees, and might even make some layers of management obsolete although that was not (yet) observed in this case. It also cuts through divisional layers, and thus creates a more matrix like organisational structure. A structure that is more appropriate for the management of projects.

And it tends to shift the model of the organisation to a more organic model, as opposed to a bureaucratic model. The organic organisational model is characterised by, among other characteristics, (Keuning and Eppink, 1993; Johnson and Scholes, 1993):

An adaptation and redefinition of the individual tasks and responsibilities by direct interaction with other people.

There is a network structure of control, redirection, authority, and communication.

The top executive does not "know it all"; knowledge is present at every place in the network, and that is where the power to act is also situated.

There is more lateral than vertical communication in the entire organisation.

Communication consists more of information and advice than of instructions and decisions.

An organic organisation is effective in an environment that is subjected to fast changes and a large amount of uncertainty.

These characteristics were all observed at DutchHold, and this organic organisational model is compatible with the network organisation, to which DutchHold wants to transform. They are both very useful in a complex or dynamic environment, and the key co-ordinating mechanisms are networking and relational contacts (Keuning and Eppink, 1993; Johnson and Scholes, 1993).

Notes begins to create a group memory

Notes enables workgroups at DutchHold to schedule meetings, distribute agendas, and keep minutes of meetings. If workgroups in an organisation use these functions, one can easily keep track of proposals, arguments, voting, and decisions. In that way the users can read back to see if a decision was really taken and implemented, or if all the arguments were dealt with. This way of record keeping minimises the opportunity for different ways of interpreting the same meeting. If an employee is in doubt and does not really know "if we decided that, or if it was only proposed" he/she can look it up in the minutes. Lotus Notes' opportunity for a full text search on every application makes searching for an item really easy. This is not enough to speak of an organisational memory since it does not yet happen at organisational unit level, or at organisation level, and it is not extensive enough. New members of the organisational unit will not be able to find an overview of what happened in the past. But new members of a

project group, who were already a member of the organisational unit and already have some background information, will be able to look up a lot of the past work, meetings, and decisions, and will be able to become part of the group much faster

This group memory can help with future decision making. It can prevent people from making a mistake that somebody else made in the past, and it can make possible solutions available for future problems. It is thus strongly related to the next effect.

Notes makes problem solving easier and quicker

Cyert and March (1963) speak of a "garbage can of choices" that organisations are in perspective of their decision making process. In their point of view, "An organisation is a collection of choices looking for problems, issues and feelings looking for decision situations in which they might be aired, solutions looking for issues to which they might be the answer, and decision makers looking for work."

Notes can actually make this "garbage can" in which problems, solutions, and capabilities are stored. These databases can be designed in such a way that one can search by problem, solution, description, etc. And it may even contain data from other companies, for instance suppliers and clients. DutchHold has a Notes knowledge base database (a reference application supplied by Lotus) that helped the author, and the Notes system administrators to solve several Notes-related problems. A similar database is kept by DutchHold for problems, solutions, descriptions, etc. regarding their standard office automation environment. Notes can manage access to it in such a way that everybody can either use the solution, or contact the person that has access to (and the capability to implement) that solution. This effect is similar to the former effect, where a group memory is introduced, but now the group does consist of a complete organisational unit, while the "memory" only consists of problems and solutions.

Greater co-ordination of group work

DutchHold did not acquire Notes to achieve a greater co-ordination of group work. But the fact that everybody has Notes, gives a greater co-ordination, because the place where the information must be made available is now fixed. And once a work group has one or more Notes databases to work with, who has access to them, and who is responsible for them are also determined. When DutchHold decided that they were going to use Notes as their

communication and information platform, they automatically increased the co-ordination of group work. In fact, since Notes is not meant for technological support on the individual level, and does not offer support for teams on the group dynamics level (Briggs and Nunamaker, 1994), it can only be effective on the co-ordination level. Although Notes may not actually support the group dynamics level, it does help group dynamics (meetings, presentations, etc.) by co-ordinating the preparations and results (distribution of meting agendas, and meeting minutes).

Because Notes databases require the team to agree on procedures and rules about how to use the database, who has access to it, who can change which items, etc. it increases co-ordination. The Notes administrator and/or developer needs these co-ordination rules to give the database the right properties and access levels. Once these properties are determined Notes does almost all the co-ordinating.

The version of Notes that DutchHold uses does not support scheduling and calendering of meetings and resources. Instead DutchHold uses Lotus Organizer as a personal scheduler. However, newer versions of Notes support scheduling and calendering of meetings, events, and resources such as rooms, projectors, etc. These functions can automate even more of the co-ordinating tasks of the employees.

Higher quality of work

Notes gives an opportunity to standardise the best information "product" in a very easy way. The company can supply on line forms in which the information must be entered. It is different from using templates in word processors, because now the resulting document contains not only text, but also pictures, logos, and automatically calculated fields. (One can even put sounds, animations, and movies in them). And one can make a document based on an other template, while a document in a certain database has to be made according to the forms available in that database. Information managers can identify what information must be entered, and employees can produce shorter, more to the point reports. This effect is a consequence of the higher co-ordination in Notes; employees now fill out a form (which they probably helped design) when making a report. The best example of this in DutchHold is a client database that is available throughout the whole organisation with fields that must be filled out before saving the document.

And the resulting document does not have to be printed. As soon as the document is finished, and saved, it is available for the rest of the employees (who have access to that information). The designer of the form can also put triggers in the form that come into action when the document is saved (or for instance when the document is assigned a certain priority). In that way previously identified persons are automatically notified of a change in a document. The employees can also store the documents in a personal way. In other words, they can store them, arrange them, or view them in a way that they find easy to work with, while it does not effect how others see them. So the greater co-ordination does not decrease the flexibility of the system.

Notes enables improvisation

Ciborra (1996) argues that "improvisation is a much more grounded individual and organisational process, than planned decision making". Groupware enables users to get many "answers" to their problems. A "full text search" in Lotus Notes will almost always result in multiple documents, with different points of view. "They do not convey a single meaning, nor do they comply to a single efficiency criterion. Rather, they deliver a variety of possible meanings and criteria out of which, in the here and now of the action, one can select a criterion best suited for the circumstances (Ciborra, 1996)." This effect is similar to the easier problem solving with the use of knowledge bases. Especially a "garbage can" for ideas and alternatives for organisational, product, or market decisions can help with improvisation. While the earlier mentioned IT knowledge bases leave little room for improvisation. DutchHold has no databases where employees can leave their creative thoughts on general subjects.

With Lotus Notes as groupware this improvisation does not only reflect in the actions, or decision the users take. But it can also be found within Lotus Notes. Only some people have the possibility to design applications. But ordinary users can request their system administrator to make the designing of applications possible for them. The system administrator only has to enable this option by selecting this option in the user ID If the user has the possibility to design he/she can not change existing applications on the server (because a good system administrator only gives real designers access to that possibility), but they can design or modify applications in their personal (local) environment. They can use templates to do so. The users can now improvise applications, that they can keep local, or that can be made

available to other users by putting it on the Notes server. And thus they improvise the automation; not using IT development methodologies, but purely making use of their work experience. This can lead to some very useful applications that have their value in the "expert" knowledge of the specific task of the user that designed it. DutchHold strongly discourages this "improvisation" in their IT development. They have experience with a lot of different systems, functioning as IT islands, and do not want that to happen in Notes. All development of applications is done by external consultants. And they are about to make strict procedures and rules for the development of new databases.

Use as personal ware

Once the users have adapted to the groupware they tend to also put personal documents in it. With some groupware this is unavoidable since the groupware system is integrated into the office suite, and users can only store documents/files in a shared environment. But other programs (such as Lotus Notes) enable users to store documents/files in a private environment. Especially the most intensive users of Notes tend to make personal local databases.

This is sometimes wise. For instance if it concerns a test application, and the user is still evaluating if the application is useful. Then later the application can, in a simple way, be moved to the shared server.

It can also be a good idea if the groupware supplies a function that the office suite does not. For instance Lotus Notes enables users to search a database of documents for (a combination) of words ("full text search"). Since most office suites only allow searching of (a combination of) words in a single document at the time, it can be helpful to keep a copy of every document in a personal Notes Database.

But there must be a good reason to put the information in a groupware system. One must want to make the information available to (certain) other people (maybe not now, but at a later time), or one must need a certain function in the groupware system.

General information technology knowledge becomes more common

Notes use terms and concepts that are very common around the use of information technology. Developers, administrators, and users of the groupware system do still need to be trained to make the best use of the groupware system. But Notes is very graphically (or Windows like) orientated.

So new users who are not used to computers will, during the course on Notes, not only learn about the Notes, but also about general IT terms. Developers and administrators can quickly do the basic things since they will very probably have experience with other (database) systems and they can use that in Notes.

Of course almost any piece of software for a Windows environment will give the same effects. But there is a difference; once Notes is operational this has the advantage that users can better identify the problems that they are having, and they will ask quicker for new applications in Notes. The users can understand better which tasks might be automated and which not. In other companies they might even be allowed to try some of that automation by themselves in their personal environment. One will more often here the phrase: "can't we solve that problem by doing this on that in Notes?". The project team at DutchHold gave a good example of this. They were in the process of designing a new main information system and used a software package as an individual development aid. At a certain time they had to review all the items they had put in that program. So somebody came with the idea to "put it in Notes, so we can review them at our own country, and only discuss the ones we still disagree on". This was done by making a new Notes database and exporting the items to it. Everybody checked the long list of items, and several discussion meetings could be eliminated. The items everybody agreed on could be imported into the development program in such a way that they also got a "checked" status. So Notes was used to temporarily put a groupware filter over an ordinary individual program.

Notes becoming a standard workplace environment

DutchHold is so pleased with the performance of Notes that they have even decided that Notes will become the standard workplace environment as soon as possible. Meetings with the possible suppliers of parts for the new main information system brought to light that the databases of this new system will be able to function in a Notes environment. The office suite

can also be integrated into Notes as applications. So employees will only be left with the office suite and Lotus Notes. But that has not yet happened so it is not certain that this will be a success. This can be viewed upon as a new plan for Notes. It is to serve not only as the communication platform, but also as the automation platform.

5. CONCLUSIONS AND DISCUSSION

Most people are part of several teams and groups. And groups need to communicate in order to produce an outcome. Groupware can enable groups to communicate more efficiently and effectively. In this case the company DutchHold chose rather by chance for Lotus Notes as their groupware. The goal of this paper is to identify the unexpected and unintended effects of using Lotus Notes as a groupware system at DutchHold. In order to do so the intended effects, or the goal of using Notes, first had to be identified. It was to become the communication platform of the entire organisation; a "virtual meeting place" for the exchange of information and knowledge. And in doing so it must support working at remote locations. Notes fulfilled these needs, but also gave some unintended, or higher-order, effects.

Notes gave employees more responsibility and access to more information. By doing so Notes helped to change the organisation. If Notes is used successfully, as it is in DutchHold, the users will fall into a different work routine. They will perform their tasks in a different way. In time this might even make some layers of management at DutchHold obsolete.

Notes also began to create a group memory. This can be looked upon as a nascent form of organisational memory. And Notes made problem solving easier and quicker, gave greater co-ordination of group work, gave a higher quality of work, and enabled improvised decision making. The improvisation of Notes application development, and the use of Notes as personal ware occurs, but is strongly discouraged to prevent island automation. Notes also instigates a wider spread of general IT knowledge. DutchHold is so pleased with the results of Notes that in the future it will become their new standard workplace environment, with the new information system linked to Notes.

When these results are compared with what Dale (1994) tells us to expect; no evidence is found that there is an increase in the productivity, at least not in quantitatively measurable terms, but there are richer, easier, and more frequent communications. The effects on the structure of the organisation can not solely be attributed to Notes since the organisation was

already transforming before the use of Notes. But there is strong evidence that Notes helps a lot with this transformation.

Further research might be done to investigate the dynamics of the higher order effects. Do these effects change the original plan for the use of Notes? Or can one identify a path of interaction between consecutive plans and higher order effects?

And how does the nascent form of organisational memory develop? Can Notes be used effectively to create a memory on organisational unit level or on organisation level, or is it only effective at group level?

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