Total Recall Survey Report

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Abstract

The overall objective of the TotalRecall project is to support humans' memory in the professional life, and more specifically to support humans in remembering information or documents exchanged during meetings, tasks to do, or for preparing their presentations for a following meeting. In TotalRecall we want to use the implicit structure of our mailbox as a start to build personal access to meeting recordings, based on each individual user personal interest. Towards this vision we have started the first phase of the project collecting information about how people manage meetings and time using digital artefacts. We have designed and performed a survey on the web inviting people to answer from a variety of sources. The document presents the survey and provides a preliminary analysis of the results.

The Survey

The survey is made of three main sections:

- **Profile Information:** To understand the profile of the person answering the questions. It is necessary to segment the answers according to different profiles. In this section we didn't ask any sensible information but only relevant features like the domain in which the respondent work.
- **Habits in managing meetings:** To understand what kind of meetings the person attends and how he manages them.
- **Meetings and technology:** To understand how technology takes place in the management of meetings and what role emails play in this context.

We have sent the survey through various mailing lists. The final number of answers received is 118. The majority of responses come from people in the field of computer science. The population covers people working in research institutions as well as in business areas.

The questionnaire contains a mix of multi-choice and open-ended questions. We have started an analysis of the collected answers, drawing both quantitative and qualitative results.

In the following we present the summary of results obtained with the questionnaire.

Results

User Profile

The distribution of the people who participated to the survey is the following:

Age Distribution
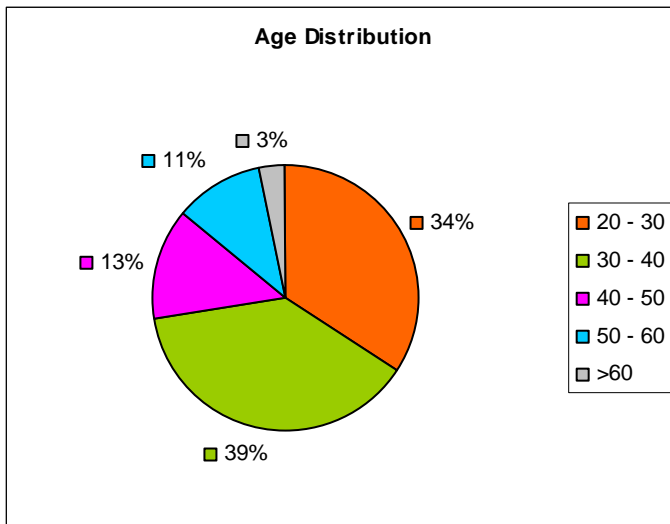
The large majority of the people is between 20-40 years old.

The large majority of respondants are from computer science or other technical fields but it's worth to notice that there is a good number of people coming from nont technical fields like: law, finance, economics, psychology, etc.

The vast majority of the people (around 90%) are expert with computers and Internet, use emails and navigate on the web since at least 9 years, and have at least a portable PC and a cell-phone.

Habits in managing meetings

- The people surveyed tends to attend more informal meetings than formal meetings
- The majority of them attend between 1 and 10 meetings per week, with around 60% attending between 1 and 5 meetings per week.
- The majority of them attend the meetings together with 1 to 5 other people (>68%) and a good number of them (27%) with 5 to 10 people
- The meetings are attended more often in a meeting room than in a personal office
- There is agood number of people (>35%) who attend meetings remotely (e.g., with Skype) at least 1 time per month.
- The majority of meetings regularly attended are weekly or monthly meetings and they last between 30 minutes and two hours, very rarely more or less time.

Meetings and technology
- The most used means to store and recall meeting's dates are the PC calendar and the emails. Notably, these two means are largely more used than other common means like: paper agenda, mobile phone or PDA, sms. Some other means to accomplish this task have been suggested by respondents. Most notably many have indicated the use of calendars or similar applications on the web (wikis, rememberthemilk.com), sometimes with the option of sharing the data with others.
- When reviewing data comin from past meetings it looks like the most often piece of information reviewed are the emails exchanged between participants and attached files. Paper notes and meeting's minutes are also used but less frequently. Audio and video

recording is almost never used, however there are some people who us it regularly: more than 10% declare to use it sometimes or often. Some other unanticipated means have been suggested by respondents in open-ended questions:

- o *"I sometimes audio-record interviews for my research, but I don't refer to the audio, I transcribe it and refer to the transcription"*
- o *"my personal electronical notes, i.e. like paper notes but available on my laptop, not on paper"*
- o *"a to-do list I generate for me from a meeting, edits or alterations to a document decided at a meeting"*
- o *"I often review my notes taken on my tablet computer (hand written)"*
- o *"Electronic meeting minutes kept on Yahoo and Google groups Track changes on a word document that is being passed around"*
- o *"sometimes handouts physically exchanged in the meetings"*

- As for the main reason why a person needs to review some material from past meetings, among the ones proposed the ranking is the following:

  - o Prepare material I need during the meeting (e.g., presentation, report)   79.7%
  - o Remember the the topics discussed during past related meetings   74.6%
  - o Remember my duties for the meeting   64.4%
  - o Remember the meeting's date   50.0%
  - o Remember other participants' duties fro the meeting   34.8%
  - o Remember who participated to past meetings   15.3%

  From the open-ended responses the following two other reasons recur often:
  - Remember time and place
  - Know the agenda

- The main means used to find files in the PC are:
  - o Remember the location where the files was stored
  - o Search for the email in which the file was attached

  Interestingly, people tend to use less the search facilities and more to remember where to look for. Quite often the email is used to find a file.

  Other methods suggested by respondents are:
  - o *"ask colleagues to send them by e-mail (when I don't find them)"*
  - o *"I have a local html file (maintained by me) with links to files not stored locally + an Excel file with links to locally stored documents"*
  - o *"different view sorting (e.g. list files by date)"*
  - o *"I store documents common to a project online in a Yahoo or Google group as do other members of the project"*
  - o *"We use a specific application design for information management. It is called CrowdTrust (www.crowdtrust.net)"*
  - o *"I keep working folders on my desktop for easy access to current projects"*
  - o *"Copernic Desktop Search"*

- The main means used to take notes during a meeting is largely paper notes. A good number of people also declare to use flipcharts or whiteboards and text files on the PC. Very few people instead use mind mapping software or video/audio recording. Other means or

methods people declare to use are:

- o Microsoft OneNote
- o Make notes in a Wiki-like application (Tomboy)
- o Phone camera to take pictures
- o I don't use mind mapping software but I do draw mindmaps regularly on my paper notes.
- o Portable PC/laptop: generally, the minutes are directly made during the meeting
- o video/audio recording most often for customer/user evaluation or discussion, rather than peer meetings
- o web docs
- o Video/Audio -> When the SMR will be live
- o Write to a mail to be send to participants afterwards
- o Tablet PC with Microsoft OneNote
- o I simply remember it in my brain! If that doesn't work I send an email to myself.
- o Email
- o Hand written notes on my tablet computer.
- o documents shared in the meeting - spreadsheets, pictures, diagrams, etc
- o again, we use CrowdTrust (www.crowdtrust.net)
- o Wiki

- When asked: "*How often do you need to send emails to participants or interested people about meeting outcomes, decisions, deadlines, etc. after the meeting?*" half of the respondents replied that they need to do it only sometimes, whereas a good 36.4% often.
- When asked: "*Do you think it would be useful to have video/audio recording of the meetings you attend?*" 42.6% replied that they believe it is useless and 43.5% somewhat useful. When asked why several reasons have been provided.
  - o More trouble to review the recording than value. It's easier to refer to notes or ask other attendees.
  - o referring back is easy
  - o Would not add anything extra to the outcome that we collective ly create, and looking back through audio or video is much too time-consuming
  - o Confidentiality Minutes are in most cases the right tool Sometimes we use a camera to take pictures of flipcharts, etc
  - o To keep certain details or show positiv or negativ reactions
  - o Not particularly useful unless there is something that needs to be presented audio/visually e.g. role-plays, otherwise it's too much information with other things too. It could be confusing to have e.g. audio of discussions - more difficult to follow than a written version.
  - o it is a lot of work to find the interesting parts in a video tape, and to reduce the tape to important information
  - o The problem is to search in audio...have an overview of the information, there is no way to do it, it is like speech sequential....that is the problem
  - o It can be rather useful to remind some people to what they actually stated the last time :)
  - o But i don't think people would like it. Fri, 6/29/07 12:31 PM It depends on the meeting
  - o Recordings are to long, to unspecific and require to much time to revisit. What I need is a _condensed_ version of the meeting results that I can read trough quickly and where I can add annotations.
  - o tedious and time-consuming to review

- It is a good source of information, very accurate, but it is connected to a high workload to recover the information you look for.
- useful in case of doubt. but else just time consuming.
- paper memos are enough. I would not have time to listen recordings afterwords. I don´t attend so important meetings that I should remember everything.
- Depends on the cost.
- takes too much time to view again
- Although I've never attended a meeting that was recorded I believe it would be useful because participants would then have a verbatim account of what was said and a clear reminder of what actions were suggested. It would also be a lot more accurate than taking minutes, or may prove to be an effective tool for the minute taker.
- too long to watch for looking special information
- What's important is the decision, not the face of the participant.
- It's inhibiting to be recorded, especially video, and it takes far too long to find what you want on the recording.
- too long to recover the informations - a text file is enough
- It is very time consuming to re-view the whole meeting. It is more efficient to filter the important data during the meeting and only review this.
- who has time to go throught them?
- Too long to review afterwards, difficult to search
- in practice I rarely review recordings because it's time consuming... some collaborators do it more often
- Signal to noise ratio is too low
- too time-consuming to review in comparison to notes taken during the meeting
- It is time consuming to listen/view the recording later on compared to reading meeting minutes/paper notes
- I will never have time to listen/view them afterwards, because it is much slower and inefficient than minutes or notes that contain only the most important info for you
- laborious & inefficient to access and use
- needs search function based on keywords to be useful as well as bookmarking decisions
- do not want the info recorded
- too hard and time consuming to get to relevant information in them. could inhibit flow of meeting
- We have fast typists who take notes during the meetings - especially virtual meetings. The notes are instantly shared with all people who can edit and update them. I have done research on automatically indexing video in meetings - Text is a better way to go.
- Takes too much time to review or "skim" the meetings. With paper notes or text files, it's much easier to search
- Would be good for a brainstorming session or to keep for remote/away participants, but for the most part, concise meeting note would be more useful - would take too much time to review audio/video recordings
- Too long to listen too afterwards
- for webconferences it may be helpful
- really depends what the meetings are for. i find audio recording very useful for usability testing but not for meetings
- It would be too long to find the appropriate information
- Too personal, won't be accepted by attendants

- When asked about the following uses one might do of meeting's recording
  - As a way to produce minutes of the meeting
  - As a way to remember dates, agreements, To Do, etc.
  - As a way to remember what a participant said (including myself)
  - As a way to let other people not attending the meeting watch it

People seem to be particularly interested in the last two "*As a way to remember what a participant said (including myself)*" and "*As a way to let other people not attending the meeting watch it*". Other uses suggested by respondents are:

- "*backup, if questions rises after the meeting. if something is not clear*"
- "*As a way to review Powerpoint slides, websites, or demos that were shown on a projector during the meeting*"

It's worth to note that some people belive they are not useful at all for any of the purposes suggested as some feedbacks demonstate:

- "*which meeting do you mean? my meetings or meetings in general? If I think about my meetings, the answer is useless in every question*"
- "*completly useless for all. Not enough time to watch a video...*"
- "*reviewing video could be helpful but time consuming - that's why we take notes*"

- Finally from our last question: "*If you had the video recording of past meetings available on a server, how would you rate the following ways to access them?*" people seem to be interested in the idea of having the videos accessible from a web server through a web browser so that they can be accessed wherever there is a connection available. They are also interested in the idea of having the recordings connected to the calendar application they use.

Page: Survey for Total Recall Project @ University of Fribourg

1. How old are you?

	Response Count
[view]	118
answered question	**118**
skipped question	**0**

2. In what domain you work in?

	Response Count
[view]	117
answered question	**117**
skipped question	**1**

3. What is your professional position?

	Response Count
[view]	118
answered question	**118**
skipped question	**0**

4. How do you rate your expertise with computers?

	Response Percent	Response Count
Expert (I know how to install applications, do some programming, configure my operating system)	**86.4%**	102
Knowledgeable (I know how to send/receive emails, navigate in internet)	13.6%	16
Passing (I use computers from time to time for limited activities like writing a document and send one email)	0.0%	0
answered question		**118**
skipped question		**0**

5. Since how many years have you started navigating in Internet and sending/receiving emails?

	Response Percent	Response Count

Less than 1 year	0.0%	0
Between 1 and 3 years	0.9%	1
Between 3 and 6 years	2.6%	3
Between 6 and 9 years	16.2%	19
More than 9 years	**80.3%**	94
	answered question	**117**
	skipped question	**1**

6. Which of the following items you own and use?

	Response Percent	Response Count
Paper agenda	46.6%	54
Palmtop / PDA	37.1%	43
Cell phone	**93.1%**	108
Portable PC/Laptop	92.2%	107
	answered question	**116**
	skipped question	**2**

7. How often do you attend the following types of meeting?

	Never	Sometimes (less than 50% of my meetings)	Often (more than 50% of my meetings)	Always (100% of my meetings)	Response Count
Formal meeting (with clients, boss, managers, etc.)	5.1% (6)	**70.1% (82)**	23.1% (27)	1.7% (2)	117
Informal meeting (with close collaborators)	0.0% (0)	45.3% (53)	**51.3% (60)**	3.4% (4)	117
Self managed (where I decide meeting's time, place, and attendants)	8.8% (10)	**69.0% (78)**	20.4% (23)	1.8% (2)	113
Organized by others (where others decide the meeting's time, place, and attendants. I just attend it.)	2.5% (3)	**55.9% (66)**	38.1% (45)	3.4% (4)	118
				answered question	**118**
				skipped question	**0**

8. On average how many meetings do you attend per week?

	Response Percent	Response Count
1 or less	12.7%	15
between 1 and 5	**50.9%**	60
between 5 and 10	23.7%	28
between 10 and 20	11.9%	14
between 20 and 50	0.9%	1
more than 50	0.0%	0

I donâ€™t know	0.0%	0
answered question		**118**
skipped question		**0**

9. On average how many people participate to a meeting with you?

		Response Percent	**Response Count**
1 or less		0.9%	1
between 1 and 5		**68.6%**	81
between 5 and 10		27.1%	32
between 10 and 20		2.5%	3
between 20 and 30		0.9%	1
more than 30		0.0%	0
I donâ€™t know		0.0%	0
answered question			**118**
skipped question			**0**
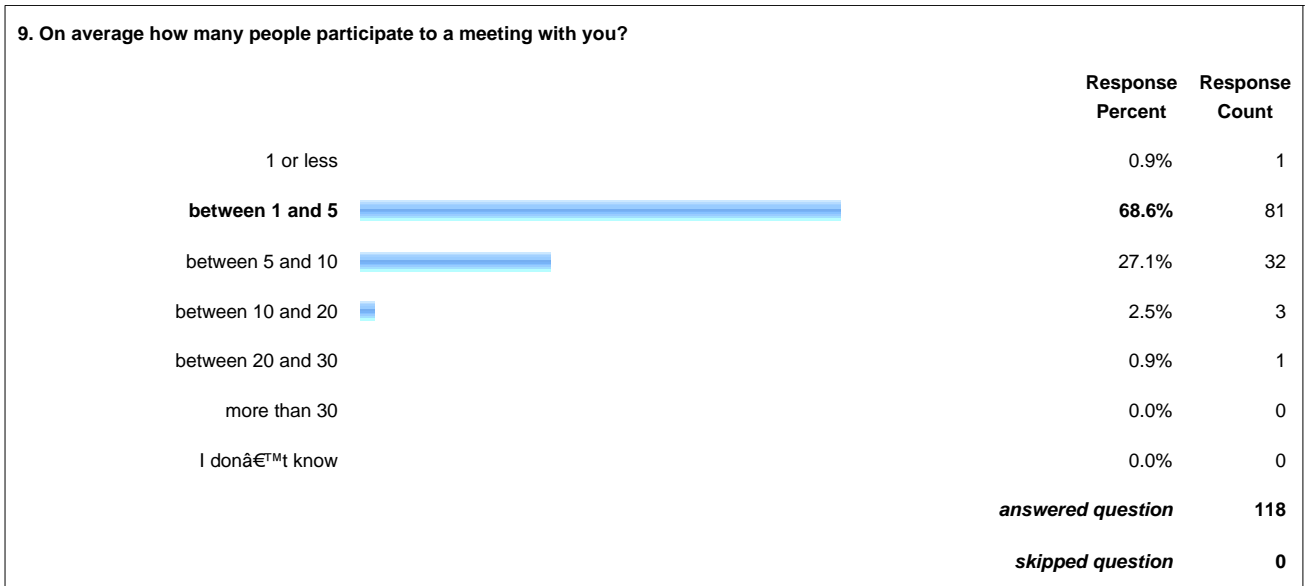
10. In which of the following places your meetings take place?

	Never	Sometimes	Often	Always	**Response Count**
personal office room	8.8% (10)	**46.0% (52)**	44.2% (50)	0.9% (1)	113
meeting room	2.6% (3)	28.2% (33)	**66.7% (78)**	2.6% (3)	117
in public spaces	32.1% (36)	**55.4% (62)**	12.5% (14)	0.0% (0)	112
at home	**79.6% (82)**	19.4% (20)	1.0% (1)	0.0% (0)	103
				Other (please specify) 💬 view	11
				answered question	**118**
				skipped question	**0**

11. How often do you participate to remote meetings (e.g., by conference call, skype, etc.)?

		Response Percent	**Response Count**
Never		20.5%	24
Only occasionally		**43.6%**	51
Around 1 and 3 times per month		16.2%	19
Around 4 and 10 times per month		14.5%	17
More than 10 times per month		5.1%	6
answered question			**117**
skipped question			**1**

12. Are there any meetings you must attend regularly in your company/organization/working environment (e.g., every morning, every week, etc.)?

	YES	NO	DON'T KNOW	Response Count
Daily	6.2% (6)	**90.7% (88)**	3.1% (3)	97
Weekly	**67.6% (75)**	29.7% (33)	2.7% (3)	111
Monthly	**65.1% (69)**	32.1% (34)	2.8% (3)	106
		Can you please explain what is their main purpose? 🗩 view		85
			answered question	118
			skipped question	0

13. What is the typical duration of the meetings you attend regularly (if you have more than one meeting you attend regularly and they have different durations use multiple selections)?

	Response Percent	Response Count
I don't have any meetings I attend regularly	4.3%	5
Less than 30 min	6.0%	7
Between 30 min and 1 hour	**55.6%**	65
Between 1 hour and 2 hours	47.9%	56
More than 2 hours	9.4%	11
	answered question	117
	skipped question	1

14. How often do you use the following means to save and recall meeting dates and time?

	Never	Sometimes	Often	Always	Response Count
Paper agenda	**44.9% (48)**	28.0% (30)	5.6% (6)	21.5% (23)	107
Mobile phone's calendar	**70.2% (73)**	15.4% (16)	7.7% (8)	6.7% (7)	104
Palmtop/PDA's calendar	**62.3% (66)**	17.0% (18)	10.4% (11)	10.4% (11)	106
PC's calendar	18.8% (22)	10.3% (12)	34.2% (40)	**36.8% (43)**	117
Emails	11.3% (13)	35.7% (41)	**42.6% (49)**	10.4% (12)	115
SMSs	**81.0% (85)**	17.1% (18)	1.0% (1)	1.0% (1)	105
			Other (please specify) 🗩 view		16
				answered question	118
				skipped question	0

15. How often do you usually need to review the following data related to past meetings?

	Never	Sometimes	Often	Always	Response Count
Paper notes	13.9% (16)	**51.3% (59)**	31.3% (36)	3.5% (4)	115
Emails exchanged between meeting's participants	3.4% (4)	38.8% (45)	**49.1% (57)**	8.6% (10)	116
Minutes produced in past meetings	23.5% (27)	**43.5% (50)**	29.6% (34)	3.5% (4)	115

Documents attached to emails	6.8% (8)	40.2% (47)	**48.7% (57)**	4.3% (5)	117
Video/audio recordings of past meetings	**89.4% (101)**	8.8% (10)	1.8% (2)	0.0% (0)	113

	Others (please specify) 💬 view	11
	answered question	**118**
	skipped question	**0**

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16. What is the main function of the pieces of information you need to review before attending a meeting?

	Response Percent	Response Count
Remember the the topics discussed during past related meetings	74.6%	88
Remember the meeting's date	50.0%	59
Remember who participated to past meetings	15.3%	18
Remember my duties for the meeting	64.4%	76
Remember other participants' duties fro the meeting	34.8%	41
Prepare material I need during the meeting (e.g., presentation, report)	**79.7%**	94
💬 view Other (please specify)	10.2%	12
	answered question	**118**
	skipped question	**0**

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17. How often do you use the following methods to find files in your PC?

	Never	Sometimes	Often	Always	Response Count
I remember where the information is stored in the file system (e.g., the specific containing folder)	0.0% (0)	12.0% (14)	**65.0% (76)**	23.1% (27)	117
I use the operating system's search functions	17.2% (20)	**65.5% (76)**	17.2% (20)	0.0% (0)	116
I search for the email having the file attached	10.5% (12)	43.0% (49)	**45.6% (52)**	0.9% (1)	114
I use other search functions (e.g., Google Search)	**64.9% (72)**	24.3% (27)	9.9% (11)	0.9% (1)	111

	Others (please specify) 💬 view	8
	answered question	**118**
	skipped question	**0**

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18. Which of the following means do you use to collect information during a meeting (e.g., meeting's minutes, notes, etc.)?

	Never	Sometimes	Often	Always	Response Count
Paper notes	5.6% (6)	25.0% (27)	**39.8% (43)**	29.6% (32)	108
Flipchart/Whiteboard	37.5% (30)	**43.8% (35)**	17.5% (14)	1.3% (1)	80

Text files (e.g., Word files)	35.2% (31)	**36.4% (32)**	23.9% (21)	4.5% (4)	88
Mind mapping software	**91.0% (91)**	7.0% (7)	2.0% (2)	0.0% (0)	100
Video/Audio recording	**95.7% (89)**	3.2% (3)	1.1% (1)	0.0% (0)	93

Others (please specify)	view	16
answered question		**118**
skipped question		**0**

19. How often do you need to send emails to participants or interested people about meeting outcomes, decisions, deadlines, etc. after the meeting?

	Response Percent	Response Count
Never	4.2%	5
Sometimes	**50.0%**	59
Often	36.4%	43
Always	9.3%	11
answered question		**118**
skipped question		**0**

20. Do you think it would be useful to have video/audio recording of the meetings you attend?

	Response Percent	Response Count
Useless	42.6%	49
Somewhat useful	**43.5%**	50
Useful	11.3%	13
Very useful	2.6%	3
Can you please specify why? view		52
answered question		**115**
skipped question		**3**
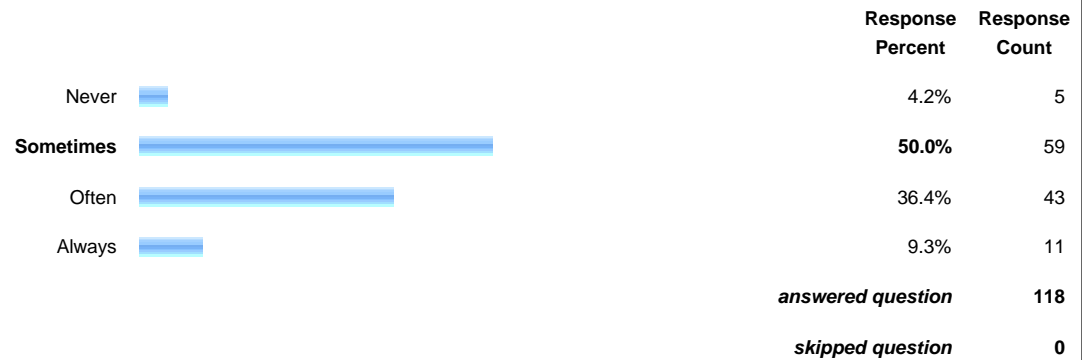
21. How would you rate the following uses of a meeting's video recording?

	Useless	Somewhat useful	Useful	Very useful	Don't know	Response Count
As a way to produce minutes of the meeting	30.4% (35)	**44.3% (51)**	14.8% (17)	6.1% (7)	4.3% (5)	115
As a way to remember dates, agreements, To Do, etc.	**53.4% (62)**	29.3% (34)	7.8% (9)	6.9% (8)	2.6% (3)	116
As a way to remember what a participant said (including myself)	19.8% (23)	**31.0% (36)**	29.3% (34)	18.1% (21)	1.7% (2)	116
As a way to let other people not attending the meeting watch it	7.8% (9)	31.3% (36)	27.8% (32)	**32.2% (37)**	0.9% (1)	115

Other uses (please specify) view		10
answered question		**117**

22. If you had the video recording of past meetings available on a server, how would you rate the following ways to access them?

	Useless	Somewhat useful	Useful	Very useful	Don't know	Rating Average	Response Count
Through my calendar application	17.1% (20)	**28.2% (33)**	21.4% (25)	24.8% (29)	8.5% (10)	2.59	117
Through my emails related to the meeting	22.2% (26)	**33.3% (39)**	23.9% (28)	12.8% (15)	7.7% (9)	2.30	117
Through my folders	20.9% (24)	**35.7% (41)**	26.1% (30)	7.0% (8)	10.4% (12)	2.21	115
Through a specific application managing meeting's data	21.6% (25)	**31.0% (36)**	21.6% (25)	13.8% (16)	12.1% (14)	2.31	116
Accessible from a web page	11.3% (13)	26.1% (30)	18.3% (21)	**35.7% (41)**	8.7% (10)	2.86	115
				Other ways (please specify)	view		7
						answered question	117
						skipped question	1