



Mitchell “Mitch” Turner

Distinguished Professor⁹⁵, Northwest University

Mitch is 55 years old and lives in the eclectic college town of Rhodes, Oregon, home of Northwest University.

Often times in the morning, you can spot Mitch listening to his iPhone and muttering out loud while he’s keeping healthy by walking to and from work. This multitasking is one of the ways Mitch makes time to learn new languages such as Spanish, German, Japanese, and Chinese¹⁰³.

Every moment in life matters to Mitch. He is driven to have an impact on things that really matter, such as the health of the whole Earth’s ecosystem, which is under threat in so many ways⁹⁸.

Mitch’s tremendous curiosity leads him to explore many diverse areas of science¹⁰⁷.

Background Knowledge and Skills

- Mitch is the Director of the Intelligent Systems Laboratory¹⁰⁸ at Northwest University. He spends a great deal of time collaborating with other scientists at Northwest and other universities, working on a diversity of projects from wildfire management to bird migration to teaching machines how to read. While at Northwest, Mitch has brought in \$30 million of grant funding¹⁰⁹.
- Mitch has a number of important roles outside of Northwest, including serving as the President of the Association for the Advancement of Artificial Intelligence¹¹⁰, and also being the CTO and Co-Founder of a local big data / machine learning startup¹⁰⁹.
- Mitch is a renowned figure in the artificial intelligence community and often travels to important conferences around the world. For example, he was recently attended the “Future of Life” conference in Puerto Rico. Here Mitch met with AI and industry leaders, including Elon Musk, CEO of Tesla Motors and SpaceX, to discuss aspects of AI important to the entire world, including to what extent the continued evolution of artificial intelligence poses an existential threat to mankind¹¹¹.
- Building a great group of machine learning faculty, staff, and students at Northwest University is a profound achievement for Mitch¹⁰². He knows there is an excellent team of intelligent, thoughtful scientists to carry on the important work that Mitch’s group is involved in.

- While in graduate school, Mitch realized that computer science was so much more than programming and got hooked on artificial intelligence, in large part because it is examined fundamental questions about psychology and philosophy⁹⁷.
- One of Mitch's talents is making complex systems easy to understand, being able to connect small details to the big picture.
- Many of Mitch's colleagues regard him as a "renaissance man" of science⁹⁶. Mitch's broad understanding of many branches of science enabled him to bring together leaders from the agriculture, engineering, forestry, and science graduate programs at Northwest University to create a combined program in Ecosystem Informatics that can tackle hard cross-domain problems such as modeling the ecosystems of the entire world¹⁰¹.

Motivations and Strategies

- Mitch is an expert with the tools he uses most often¹¹. For example, Mitch will make special macro commands in his email client to perform complex steps of actions more quickly¹⁰⁴.
- Mitch learns new tools only when they part of important research or if he knows they will save him time^{2,104}. He doesn't spend his little free time trying new software tools or exploring obscure functionality of the software applications and tools he uses^{6,104}.
- When Mitch organizes information, he uses a combination of tags and folders³⁵. He has developed a sophisticated tag schema over time¹⁴ and uses this tag schema frequently³⁷ to organize his email¹⁰⁴. In Mitch's ideal world, all of his information would be organized and easily accessible using tags¹⁰⁴.
- Mitch tags his email with a rich set of tags that supports project, task, people, and event management^{17,104}. Email is the cerebral cortex for much of his world^{40,21}. Mitch uses the calendar built into his email client to manage his time¹⁰⁴. Mitch's assistant has access to his calendar to streamline travel and event planning¹⁰⁴.
- While Mitch maintains a todo list in Emacs, Mitch's inbox also represents "work to be done"¹⁹. A significant portion of Mitch's task management revolves around "inbox management"²¹.
- Finding a way to save 15 minutes of time a day would make Mitch very happy¹⁰⁵. Many weeks, Mitch only has three to four hours of unallocated time on his calendar¹⁰⁶.
- Mitch will often only try something once. If it doesn't work, he doesn't go back to it⁵⁵.
- The main goals of Mitch's information organization strategies are quick retrieval and context recovery. Once he finds a strategy that works for him, he tends to stick to it¹⁰⁴.

- Every now and then, Mitch will pick up and learn a new tool to help him better organize some part of his work⁴⁸. Most recently, Mitch learned OneNote so he could better organize his high volume of meeting and conference call notes¹⁰⁴.

Attitudes about Technology

- Mitch likes technology to be simple and predictable²⁰. He depends on the software applications he uses to get work done quickly and efficiently³⁶. Much of this depends on retrieval²².
- Mitch is interested in tools that can consistently save him time, even if they aren't perfect³⁶. He will take the time to do things today that will save him time tomorrow. This is how Mitch puts time in the bank¹⁰⁴.
- Mitch is an early adopter of using machine learning to help him be more efficient and effective with the various communication, knowledge management, task management, project management, and other tasks related to his work⁷.
- Mitch appreciates when there is consistency between the small cognitive actions he takes in an application and his bigger picture cognitive model of how things should work¹.
- As Mitch is a machine learning expert, he is often aware of how his actions might affect how his intelligent email assistant is working^{53,56}. In his ideal world, the assistant would be invisible and something he wouldn't even remember that it's there working in the background⁵².
- Most of the workflows required for Mitch's job as a professor flow through email²¹. As much as Mitch uses an intelligent assistant to help with tags, he would also the assistant to help him save time dealing with these workflows⁵⁴.

Software Environment

- Mitch originally was a UNIX user and still uses some UNIX tools, such as Emacs, which he uses to manage his primary todo list^{19,104}. He currently works in a Microsoft Windows environment as this is the only environment that supports the advanced intelligent email assistant that he depends on to help him manage all the email he gets^{11,104}.
- Mitch has used an intelligent email tagging assistant that integrates into Microsoft Outlook for the past seven years¹⁰⁴.
- Mitch depends on his lightweight notebook computer for almost all of his communication and information storage¹⁰⁴.
- Along with Microsoft Outlook, Mitch makes extensive use of Microsoft Word, Microsoft Excel, Microsoft PowerPoint, Microsoft OneNote, and Adobe Acrobat¹⁰⁴.
- While Mitch knows how to program in Lisp, the little time he spends programming is mostly using R, a language for mathematics, statistics, and machine learning¹⁰⁴.

Using Software

- Mitch makes decisions regarding when to create tags and when to use certain features of his intelligent email assistant based on a decision-theoretic framework that is based on his own perceptions of cost, risk, investment, and pay-off^{2,3,5,6}.
- Using tags is a notational strategy for Mitch. Tags also function as mnemonic cues^{TODO} to help Mitch recover context^{4,TODO}.
- As many of Mitch's tags represent work to be done, when Mitch is using tags, and when the intelligent email assistant is helping Mitch with tags, these actions are effectively performing tasks that directly relate to his goals in using email⁸.
- Similarly, when Mitch is using tags in email, as many of these tags represent some aspect of task management, Mitch may experience any of these common seven problems¹⁶:
 - Keeping track of lots of concurrent actions: One's own to-dos and to-dos one expects from others.
 - Marking things as important or outstanding amongst the less important items.
 - Managing activity extending over time or keeping track of threads of activity and discussions.
 - Managing deadlines and reminders, which may be associated with particular messages or other content.
 - Collating related items (e.g., an extended thread or responses to a survey) and associated files and links.
 - Application switching and window management.
 - Most important, getting a task oriented overview, at a glance, rather than scrolling around inspecting folders.
- Due to the high demands on Mitch's time and project and information overload, using software can be a lot more stressful at times, especially when it doesn't work well. It is important for software to help Mitch recover context⁶⁶.
- With email, if there a lot of important threads in a given day, Mitch may feel more overloaded⁶⁷.
- Mitch uses email to triage important work⁸⁶, such as moderating the machine learning section of the arXiv web journal¹⁰⁴.
- Time and time pressure have a strong effect on how and why Mitch uses his software⁹².

Please note that footnotes are still in progress. Dependent on how we deal with the divergent needs of our stakeholders, we may have to revise this foundation document and attendant footnotes.

Data Source Table

#	Category	Source	Factoid
1	behavior	AI1	Consistency between micro-level and macro-level cognitive mechanisms
2	behavior	AI1	Cost: attention units to get the work done. (Presumably the activity also has monetary costs, such as purchase of software, but this is external to the model.)
3	behavior	AI1	Investment: attention units expended toward a potential reward, where the reward can either be external to the model (such as payment for services) or an attention investment pay-off.
4	behavior	AI1	Management of complexity as a cognitive task involves linguistic and representational strategies that can in themselves be viewed as notational, and subject either to direct manipulation of the notation or more abstract interaction.
5	behavior	AI1	Pay-off: reduced future cost, also measured in attention units, that will result from the way the user has chosen to spend attention.
6	behavior	AI1	Risk: Probability that no pay-off will result, or even that additional future costs will be incurred from the way the user has chosen to spend attention.
7	behavior	EA1	Numerous studies have shown that early adopters are heavy users of commercial, professional and interpersonal information sources
8	behavior	MLT3	Users who are encouraged to act, rather than read about acting, are more successful in their learning. Users who are encouraged to perform tasks that are directly related to their goals in using the software are more able to formulate realistic plans, the set of steps they envision will take them through a series of actions to their goals
9	behavior	PM2	People average about three minutes on a task and somewhat more than two minutes using any electronic tool or paper document before switching tasks.
10	behavior	PM2	People worked in an average of ten different working spheres. Working spheres are also fragmented; people spend about 12 minutes in a working sphere before they switch to another.
11	behavior	PM8	Email users are heavily invested in their existing tool. They are thus unlikely to adopt an entirely new tool that requires them to move their legacy email archives and learn new software without some top-down organizational imperative (such as organizational edicts or moving to a new company with different supported software).
12	behavior	S000	"I don't think that if we implemented that we would get much benefit out of it and there would be a significant cost."
13	behavior	PM2	In this paper we present empirical results that suggest that people organize their work in terms of much larger and thematically connected units of work.
14	email	AI1	Management of complexity as a cognitive task involves linguistic and representational strategies that can in themselves be viewed as notational, and subject either to direct manipulation of the notation or more abstract interaction.

#	Category	Source	Factoid
15	email	MT3	A recent survey found that email overload is viewed to contribute to a loss of productivity and a significant decrease in task coordination.
16	email	PM5	<p>We identified seven specific problems that participants in our study experience with task management in email:</p> <ol style="list-style-type: none"> 1. Keeping track of lots of concurrent actions: One's own to-dos and to-dos one expects from others. 2. Marking things as important or outstanding amongst the less important items. 3. Managing activity extending over time or keeping track of threads of activity and discussions. 4. Managing deadlines and reminders, which may be associated with particular messages or other content. 5. Collating related items (e.g., an extended thread or responses to a survey) and associated files and links. 6. Application switching and window management. 7. Most important, getting a task oriented overview, at a glance, rather than scrolling around inspecting folders.
17	email	PM8	Email has become an overloaded tool supporting far more than just messaging. It requires sophisticated integration with other resources such as document management and event management.
18	email	PM8	Email users are heavily invested in their existing tool. They are thus unlikely to adopt an entirely new tool that requires them to move their legacy email archives and learn new software without some top-down organizational imperative (such as organizational edicts or moving to a new company with different supported software).
19	email	S000	"I don't know that I have a strict rule between what goes into my to-do list and what stays in the inbox."
20	email	S000	"it's right enough of the time that I kind of assume it's right"
21	email	S000	"Stuff in my inbox is either has not been read yet or it has been read and I've moved it to my done folder. So I have a big folder that I keep all of the messages that I'm done with. And I either am really done with it or I have added an entry in my to-do list that tells me what I need to do. And then the other stuff that's in my inbox that I have read is something else that I need to do that is maybe less work."
22	email	S000	"the main reason I put a tag on something is for retrieval of relevant emails"
23	email	S143	Email is my primary communication mechanism with my students and my collaborators etc. That and Google Calendar are my lifeline. Most of what I do is through email.
24	email	S143	The thing for me for intelligence or filtering would be if I could train an assistant to differentiate between these are the things you need to look at eventually or look at right now. "Are you in your office" vs. "Here's a proposal from the curriculum committee..."
25	email	S287	Almost all of my communication occurs in email

#	Category	Source	Factoid
26	email	S444	Giant inbox. Search to access what I want. I mark messages as unread that need to be dealt with in a timely manner until they are dealt with. If a message hasn't been dealt with, it stays unread. It may stay unread for a month. Obviously it's been read, but I remark it as unread. I organize it on my desktop with unread at the top. On Android, I can't do this.
27	info-org	IOR1	Folder overlap was particularly evident between the document and email hierarchies
28	info-org	IOR3	Users receiving many messages were more likely to create folders, possibly because this serves to rationalize their inbox, allowing them to better see their 'todos'
29	info-org	IOR6	Archivers focus on ensuring that personal information management is stored for later info-ret. As a result of building complex hierarchies of folders, these individuals spend a considerable amount of time filing and sorting email.
30	info-org	IOR6	Managers distribute emails to employees
31	info-org	IOR6	Prioritizers organize their email in order of personal priority. They develop organizational schemes in which they neglect or delete email to ensure that certain emails remain within the email inbox window
32	info-org	PM1	In multiproject settings where the projects are of a rather similar nature, it is easier more directly to use the knowledge generated by one project in another.
33	info-org	PM1	In the highly projectified companies of the kind investigated in the study, time issues emerged as even more relevant, since the schedules of different projects are partly dependent on each other.
34	info-org	PM3	In many organisations project overload syndrome can occur, caused by having too many large change projects running at any one time. This results in resource conflicts (particularly if the resource pool for change projects is already limited), delays in the completion of the project and a general weariness of change across the organisation.
35	info-org	PM4	For the 28 users who had created file and email folders, the average file/email overlap was 7.0 folders (sd.5.6).
36	info-org	S000	"Because if I had to do it all myself it would be equivalent to if it was wrong 100% of the time. So the fact that it's right 75% of the time or something is –saves me three quarters of the time it would take. And since I get so much mail and I have to manage it somehow I would have to be foldering or tagging anyway."
37	info-org	S000	"I would guess that maybe there's one new tag a week on average"
38	info-org	S000	"So there's a lot of new tags being created either for new conferences, new employees, new grants and then maybe the other thing probably in there is new research projects. That's much rarer."
39	info-ret	IOR3	Other work has examined how people refind personal files on their personal computers, showing that people are more reliant on folder access than search.

#	Category	Source	Factoid
40	info-ret	IOR3	Participants were usually able to remember whether a particular message was in their mailbox. Also, memory for specific information about each message was generally good; people remembered content, purpose, or task related information best, correctly recalling over 80% of this type of information, even when items were months old. However, frequent filers tended to remember less about their email messages.
41	info-ret	IOR5	Components of autobiographical events that have a logical mapping onto email message attributes are people, time and activity. In most cases, these can be mapped to 'sender,' 'time' and 'subject' of a message
42	info-ret	MT1	People first work on information tasks that have a higher level of interest for them and a greater degree of domain knowledge
43	info-ret	MT3	A qualitative study of 125 knowledge workers found that information format, accessibility, and quality contributed to productivity constraints.
44	info-ret	MT3	Knowledge workers' productivity is inhibited due to software bloat, information overload, and communication overload.
45	info-ret	MT3	The theory of task-technology fit posits that increased utilization of a system can actually result in poorer individual performance if the technology does not readily support the subset of tasks an individual need to perform (Goodhue et al.1995).The fundamental argument is that a particular technology must fit the task in order to confer benefits to the user.
46	info-ret	OTH1	important when fixing misclassified mail. The prevalence of these types of barriers suggests the need for intelligent user interfaces to be able to direct end users to the most useful places to give feedback, such as which words will have the strongest effect on message reclassification.
47	info-ret	OTH1	The fact that Selection and Coordination barriers account for most observed barriers is confirmed by questionnaires, where 16 of 22 respondents (72%)mentioned difficulty in determining which words were important when fixing misclassified mail. The prevalence of these types of barriers suggests the need for intelligent user interfaces to be able to direct end users to the most useful places to give feedback, such as which words will have the strongest effect on message reclassification.
48	info-ret	OTH4	The second factor leading to obstacle closure was the visibility of expected benefit . In Attention Investment terms, she expended attention when she perceived the benefits of overcoming the obstacles to be greater than the cost.

#	Category	Source	Factoid
49	info-ret	PM4	Organizing strategy is influenced by the likelihood and style of retrieval. Our qualitative data suggests that users are more likely to re-use files than emails or bookmarks, particularly over the long-term. Users perceive that file organization is more worthwhile since the cost of filing is offset by predicted benefits at retrieval time. Also, users tend to retrieve email by sorting on metadata, such as "sender" and "date received". Therefore there is less need to organize to facilitate folder-based browsing.
50	info-ret	PM4	Participants stressed how the nature of acquisition varied between the tools - from manual in files and bookmarks, to uncontrolled in email: (P11: "everything just gets stuffed into the inbox"). All participants actively collected both files and email. File collections were highly prized, and many participants expressed the pride they felt towards the contents, much of which they had kept over a number of years: (P29: "Some of them I'll need again, some of the things I'm quite proud of ... why should I throw it away? It doesn't cost me anything"). Email collections were valued less more than files, but most participants noted the sentimental or professional value of a subset of their messages: (P24: "I keep them to make sure I've got one thing from them to reply to. Also it's nice that the person has written"). Bookmarks were of low importance for most participants (supporting findings in [9]), however all but one collected them to some extent.
51	info-ret	PM4	Therefore we developed our own classification based on participants' strategy descriptions (Table 3). Our sample included 2 no-filers (folderless spring-cleaners), and 8 frequent filers - but no spring-cleaners (users who only clean their inbox periodically). The remaining 21 participants had large inboxes (>75 items, average 1137), like the nofilers and spring-cleaners in [13], however their reported strategies did not match these classifications. They filed some new emails immediately (typically those of perceived long-term value such as e-commerce receipts), and deleted low-value spam. Other messages were left in the inbox, which was occasionally spring-cleaned. In other words they employed multiple strategies – a combination of frequent filer , spring cleaner, and no-filer.
52	mental-model	S000	"I mean, if I also had the ability to highlight a word and say, "This is an important word. Make sure you've got a weight on this." That might be nice. But I really don't want to do that. I just want to tell it the right tags because I'm tagging it to get work done and I don't really want to spend time teaching it stuff."
53	mental-model	S000	"I took off the old tag, so EISI 2014 just got a bunch of negative training data and 2015 doesn't have any yet positive training data."
54	mental-model	S000	"if you ask me about any tag, I can probably give you my mental policy, and if I can't, it's probably because I need to improve it"

#	Category	Source	Factoid
55	mental-model	S000	“It didn’t seem to do anything good. Because the problem was when I retrained it they were just fat again so they –I think. That’s my hypothesis. That if I just reset them and don’t retrain them maybe that would be a good. But yeah, I’m not convinced it’s actually doing anything. That’s just my impression that it wasn’t solving the problem.”
56	mental-model	S000	MS: Did you end up with both tags on those messages? TD:No, I deleted the service one, then. MS:So you leave the most specific tag. TD:Generally. I’m probably not consistent on that. I have the same thing happening on conferences. There’s where I am thinking like a machine learning guy and saying, “Well, if I leave the conference tag on there then the conference tag will be happy with these which it should be because they are about conferences.” And so that won’t confuse it as much. So I am thinking like that. But I don’t think end users should ever be thinking like that
57	ml-behavior	OTH1	These learned programs do not come into existence when the learning environment has left the hands of the machine learning specialist; instead, they are learned on the user's computer. Thus, if these programs make a mistake, the only one present to fix them is the end user.
58	ml-behavior	OTH2	Explanations of system behavior are extremely beneficial. Explanations that answer why certain outcomes happened, based on user actions, can contribute positively to system use.
59	ml-behavior	OTH2	The user’s willingness to invest time providing information to an intelligent system can be viewed in terms of a cost-benefit risk judgment by users, drawing on Attention Investment theory (Blackwell 2002). According to this theory, in weighing up whether to provide feedback, users’ perceptions of costs, benefits, and risks each play key roles. One of the charges of a good user interface is to provide the user with the information needed to make assessments of costs, benefits, and risks that are reasonably close to actual costs, benefits, and risks.
60	ml-behavior	OTH3	Debugging, however, can be difficult for even trained software developers—helping end users do so, when they lack knowledge of either software engineering or machine learning, is no trivial task.
61	ml-behavior	OTH3	End users’ experience with intelligent agents does not necessarily suffer when they are exposed to more knowledge of how the agent works.
62	ml-behavior	OTH3	Making an agents’ reasoning more transparent is one way to influence mental models.

#	Category	Source	Factoid
63	ml-behavior	OTH3	Participants who were presented with structural knowledge showed no evidence of feeling overwhelmed by this additional information and viewed interacting with the intelligent agent in a positive light, while participants holding only functional mental models more frequently described their debugging experience in negative terms, such as “confusing” and “complex”.
64	ml-behavior	OTH3	When an intelligent agent’s reasoning causes it to perform incorrectly or unexpectedly, only the end user is in a position to better personalize—or more accurately, to debug—the agent’s flawed reasoning
65	ml-behavior	OTH4	Learning barriers overcome with invalid assumptions often led to insurmountable barriers
66	multitasking	PM1	Sharing time between several projects, at an individual level, may result in perception of work as disrupted and fragmented, in elevated levels of time pressure, and in fewer opportunities for recuperation between periods of intense and strenuous work. Other negative consequences of sharing time between many projects are decreased competence development, and less improvement in work routines. Switching from one project to another can result in considerable amount of set-up time. On the other hand, there are also indications that multi-project settings can provide for increased learning and a rich work content.
67	multitasking	PM5	The factors that seem to relate most to a sense of overload are the number of threads one is tracking per day, and the length of the intervals between messages in those threads.
68	multitasking	S287	Email is multitasking. I pick something on one of my todo lists. Unless I get distracted by something that just came in email that I can polish off quickly. I have levels of todo lists. Daily priority list... what really really has to be done today. Done on paper. Some of it done on paper. Longer term one by deadline in email. I don’t get it longer and longer. I write down stuff that I really hope I get done today. Email. CHI paper for an hour. CS352 for an hour. I don’t know what is... but I did that. Hiring. Got my boarding pass. Worked on CMU talk. CS519 grading. Then I went to CS352 class. Email was the vehicle for hiring and boarding pass. Class was web. CHI was word processing and a little email.
69	multitasking	S287	I’m not as good as young people are. Now nobody my age can do that (homework on the bus). Compared to other people in my job... about the same. We all have to multitask. Compared to the general population... more coping mechanisms... as deadlines are more important.
70	multitasking	S287	Oh, I hate context recovery. Context switch is a huge cost for me. Did you do your homework as a kid? It was so easy then... Interruptions now... much harder. Interruptions are awful. Turn off email when I have a terrible deadline. That and the todo list helps me recover context. What am I doing next?

#	Category	Source	Factoid
71	multitasking	S444	Code has a higher recovery cost than writing. Sometimes a paper I haven't seen in a long time also take longer to recovery. Mostly I still have a good memory.
72	multitasking	MT3	Certain level of interruption can actually improve performance by increasing an individual's focus on the primary task and allowing the individual to multitask, however, they have also shown that excessive interruptions affect human behavior by negatively impacting recall, accuracy, efficiency, stress level, and ultimate performance.
73	multitasking	MT3	Found an inverted-U-shaped relationship between multitasking and productivity – more multitasking enabled by more technologies is found to relate to declining project performance when technologies are used beyond the optimum.
74	multitasking	MT3	Knowledge workers' productivity is inhibited due to software bloat, information overload, and communication overload.
75	multitasking	MT3	Studies have shown that knowledge workers are interrupted on average every three minutes since the proliferation of communication technologies such as e-mail, instant messaging, and other distractions while it takes workers nearly eight uninterrupted minutes to regroup for productive thinking
76	paradox	PDX1	Users apply prior knowledge even when it does not apply. Attack: Repress potential connections to prior knowledge. Example: Explicit system models. Performance feedback.
77	paradox	PDX1	Users apply prior knowledge even when it does not apply. Mitigate: Make or describe system as truly similar to something familiar. Example: Direct manipulation. Natural Language.
78	paradox	PDX1	Users focus on end products at the expense of prerequisite learning. Attack: Make learning the system intrinsically rewarding. Example: Performance feedback. Systems as games.
79	paradox	PDX1	Users focus on end products at the expense of prerequisite learning. Mitigate: Make learning the system easy. Example: Training wheels. Undo.
80	proj-mgmt	PM3	Breaking large projects down into sub-projects or work packages is regarded as one of the most important tasks in new or development projects.
81	proj-mgmt	PM3	Keeping the plans simple, with the right level of detail, can encourage a project to be reviewed regularly and easily. This makes them useful communication tools and effective monitoring devices for the project.
82	proj-mgmt	PM7	Email systems also support the application of a series of workflow-related programs in a distributed R&D projects.
83	proj-mgmt	PM7	In dispersed R&D teams IT can support four basic tasks. (1) Coordination of decentralized project activities. (2) Exchange of technical information. (3) Promotion of creativity and quality. (4) Formation of a personal network and development of trust.

#	Category	Source	Factoid
84	proj-mgmt	PM8	Email has become an overloaded tool supporting far more than just messaging. It requires sophisticated integration with other resources such as document management and event management.
85	proj-mgmt	PM8	Email users are heavily invested in their existing tool. They are thus unlikely to adopt an entirely new tool that requires them to move their legacy email archives and learn new software without some top-down organizational imperative (such as organizational edicts or moving to a new company with different supported software).
86	task-mgmt	IOR6	After accessing the email client, every participant engaged in email triage. Email triage is the process where a user filters, sorts, and generally organizes their email queue.
87	task-mgmt	IOR6	Participants noted that they made a clear distinction between short responses, messages that required a short message or action, and long responses, messages that demanded a well composed message or for the participant to organize materials for a response.
88	task-mgmt	IOR6	process started with looking for emails that they had mentally noted, were flagged, or left unopened during morning triage. If the participant did not have time or information necessary to compose a response during the day, the response rolled to the next day where it would again be reviewed and reprioritized.
89	task-mgmt	IOR6	Some messages are flagged or tagged with higher importance and the inbox is occasionally flag-sorted such that flagged messages bubble to the top. Many users resend messages to themselves
90	time-mgmt	PM1	Delays and deviations from schedules may be a consequence of project overload, but project overload may as well be a consequence of problems with meeting pre-set schedules and deadlines.
91	time-mgmt	PM1	Project overload was significantly and negatively correlated with the proportion of projects that adhered to their time schedule.
92	time-mgmt	PM1	Time focus, schedules and time limits are important in almost all kinds of projects, and time pressure is an important driving force for work progress.
93	time-mgmt	S000	"this was my time on the island"
94	time-mgmt	S143	Calendar is time management. Email is todo management. Sometimes I put time to do things on the calendar, so I have reserved time to review a paper for a student or something like that. Sometimes I will send myself emails as reminders to do things.
95	personal	S000W1	Turner's broad influence was recognized in 2013 by Oregon State University when he was selected to be a "Distinguished Professor," the highest honor for faculty. He has also earned exclusive "Fellow" status in both the American Association for the Advancement of Science and the Association for Computing Machinery.
96	personal	S000W1	"Mitch Turner is known as a renaissance man," says Terri Fiez, Head of the School of Electrical Engineering and Computer Science, of her colleague whose active research program has earned him many accolades.

#	Category	Source	Factoid
97	personal	S000W1	In graduate school he realized that computer science was much more than just programming and got hooked on the area of artificial intelligence because it examined fundamental questions about psychology and philosophy. After he finished his master's degree at University of Illinois at Urbana-Champaign he decided to go on to Stanford to get his Ph.D.
98	personal	S000W1	"I realized I wanted to have an impact on something that really mattered — and certainly the whole Earth's ecosystem, of which we are part, is under threat in so many ways. And so if there's some way that I can use my technical skills to improve both the science base and the tools needed for policy and management decisions, then I would like to do that. I am passionate about that,"
99	personal	S000W1	This passion has led to several projects including research in wildfire management, invasive vegetation and understanding the distribution and migration of birds.
100	personal	S000W1	"We take this data which is rather large and messy and apply techniques of machine learning to convert them into accurate models for prediction and recognition," Turner says.
101	personal	S000W1	Additionally, Turner has been one of the leaders in bringing together a consortium of faculty from seven different graduate programs from the colleges of agriculture, engineering, forestry and science to create a program in ecosystem informatics that supports education in the combined fields of ecology, mathematics, computer science, and engineering.
102	personal	S000W1	He is also proud of the AI machine learning group of outstanding faculty, students and staff that Oregon State has built up over the years to become internationally prominent.
103	personal	S000W1	"I love my work. So I really enjoy spending time on it," he says, but admits to having one major hobby which is learning the languages of all the different places he has had the opportunity to visit including Brazil, Chile, Spain, Germany, Japan, and China. "So if you see me walking home muttering to my iPod, it's because I'm listening to language tapes while I'm getting some exercise," he says with a smile.
104	Personal	S000C1	Placeholder. Snippets forthcoming, from transcript or notes of interview of Mitchell Turner.
105	Personal	S000C2	Placeholder. Snippets forthcoming, from transcript or notes of interview of Mitchell Turner.
106	Personal	S000C3	Placeholder. Snippets forthcoming, from transcript or notes of interview of Mitchell Turner.
107	Personal	S000W1	Turner has a more modest way of stating it, however: "I like to say I have research attention deficit disorder in the sense that I'm curious about many things and I like to work on a lot of different projects."
108	Personal	S000W2	Mitchell Turner, Distinguished Professor of Electrical Engineering and Computer Science (May 5, 2013) (School of Electrical Engineering and Computer Science, College of Engineering)

#	Category	Source	Factoid
109	Personal	S000W3	"He has obtained more than \$30 million in research grants over his career, helped build a world-class research group at Northwest University, and created three software companies. Turner also co-founded two of the field's leading journals and was elected first president of the International Machine Learning Society."
110	Personal	S000W4	President: Mitchell Turner (Northwest University, USA)
111	Personal	S000W5	"It's wonderful, because this will provide the impetus to jump-start research on AI safety", said AAAI president Mitchell Turner. "This addresses several fundamental questions in AI research that deserve much more funding than even this donation will provide."
112	Personal	S000P1	"Tags aren't perfect, but they work better than anything else I know of. Ideally, I could get to all of my information using tags and use tags for context recovery."