e-Me STORIES & SCENARIOS

THE IDEAL ELECTRONIC GALAXY OF THE STUDENT

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e-Me Stories and Scenarios
The Ideal Electronic Galaxy of the Student

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A DAY IN THE LIFE OF A STUDENT

Today students at universities and in higher education are offered, and required to use a rapidly increasing number of electronic services. They range from school and course sites to interactions with authorities, as well as with companies offering student discounts. This forces students to remember a multitude of user IDs, passwords and login procedures. On top of this, students are often provided with special email accounts for studies and academia. Many students have four or more different email addresses. Consequently, a lot of time is spent on logging onto different mail systems, trying to find passwords and links to various sites. Sometimes electronic services are not used, because it's easier to perform the task manually than to do it electronically.

THE ELECTRONIC SERVICE PARADOX

Students (and many others) begin to experience this as a paradox: On the one hand there are simply too many sites, services, mails and text messages, on the other hand there is frustration that a lot of things are still not possible to accomplish electronically. We call this the Electronic Service Paradox.

The e-Me project has engaged a large number of students in finding solutions to the paradox by shifting the focus from the organizations to the people. The result is the e-Me.

Our originating question was:

What if there was an electronic assistant that worked solely for you?

- That could sort, filter and organize your mails, messages, contacts and calendar in the way you wanted?
- That companies, government and organizations had to go through when they want something from you?
- That fills in forms and look things up for you?
- That reminds and notifies you of things in the way you want, wherever you are?

The students have produced scenarios (short stories) which have then been made into cartoons. The biggest part of this booklet is dedicated to these cartoons, giving a glimpse of what students want the future to hold. We also show how this could affect the development of electronic services. While this electronic predicament is not only experienced by students, the project has focused on European students as they are forming their own ways of managing schedules, contacts and taking responsibility for their own lives. Their lives before and after education are also part of the project.

TURNING THE INTERNET AROUND

To date, the development of the internet has been driven by the needs and wants of organizations. Initially corporations created websites to support sales, followed by services. Established companies that wanted to complement and support existing businesses as well as startups whose business ideas were based on the internet. Later, governments and other authorities joined in offering their services electronically. This has led to a great number of internet services offered and used by large amounts of clients, customers, citizens and users today. The number of sites and services has exploded and create a market for search engines that look things up and portals that collect links and information on various topics. Parallel to the development of the web, the use of email and mobile phones has increased dramatically, both as personal communication media and as sales and marketing channels.

This is what we mean when we say "turning the internet around"; to shift the initiative from the organizations and their sites to the people.

A REVOLUTION OR A NATURAL STEP?

Many organizations already strive to develop electronic services from a client perspective. But they still develop services with the goal to develop their own organization. The client most often understands the services in a the context of other services, supplied by other organizations, and may have other interests and motives. Will for instance the tax authorities develop a service that helps you minimize tax? Will a computer company build a service that helps decide whether to buy a new computer or to go on holiday to Greece? The point of the e-Me is to have the best interests of a person as its main priority.

In thinking in these terms the use of words like "client" or "user" are complicated as they reduce the person to his or her relationship with an organization or system. A true "client" or "user" driven approach must surely start with the person and from that point explore what role an organization or system should have in the person's life, rather than the opposite. Search engines and portals are important steps in the right direction, but they continue to be supplied by organizations and are also vehicles for these organizations.

Search engines have so far not had any significant impact on how services are developed and delivered as they focus on finding them. The e-Me could be thought of as a personal portal, but we find that people view portals more as static link collections than personal electronic assistants. The e-Me is percieved as

being "alive" in the "electronic universe", not only when accessed or explicitly used.

THE ORGANIZATIONS' POINT OF VIEW

Interestingly, there is an organizational side to the paradox as well. Many organizations spend an increasing amount of money on electronic communication and still feel they get less and less in return. This is owing to the same problems students and others perceive, but also to the fact that an organizations' services may be related to services offered by other organzations. This phenomena increases the need for organizations to be "networking". By engaging in a people-centric structure, organizations will save money on development by reaching targeted clients in relevant ways.

The explosion of services has to be met with the development of some support for how people should cope with this, lest the whole "electronic universe" becomes increasingly inefficient.

THE BUSINESS OF e-Me

The e-Me might be thought of as a service itself with a straightforward business model. That is, people pay for the e-Me. There are however some more compelling possibilities. There is the possibility that the e-Me helps organizations lower their costs of contacts by offering a sophisticated and trustworthy mechanism for permission-based marketing/ interaction. The more advanced scenarios point at altogether new business concepts. The e-Me galaxy can be a marketplace itself, with low costs for entry. Students can design and share services utilizing e-Me's. This could give individuals and smaller companies access to a larger market. Ultimately, we foresee a strong market of "user designed services and systems", where the concept of "turning the internet around" is also applied to businesses. An example already materializing is the "market" for academic notes and summaries where students pay for useful material produced by other students.

THE e-ME
PROJECT

The approach of the project has been to help students design their *ideal* e-Me in surveying students' needs. They have written scenarios presenting how they think they should *ideally* experience the e-Me in the "as good as possible" scenarios, rather than utopian ones.

The project has run nine student workshops in Stockholm and Borås to develop the e-Me scenarios, and in Barcelona to verify the concept and to get an international perspective. More than 60 students have been actively engaged in this qualitative work. We have also interviewed university and high school students as well as alumni. In addition, we have used the results of other European and US studies.

Separate workshops have been organized with the project partners to develop business models, concepts and technologies for making the e-Me a real service. In the project, all partners treat the student scenarios as a market survey in the sense that they acknowledge that this is how the students express their needs and wants. The partners have, and will continue to explore the e-Me concept and its consequences. As a third source of inspiration, designers, artists and design oriented researchers have been involved in giving their ideas about possible futures with an e-Me service.

A RESEARCH PROJECT Research projects can take many
forms. In this project, we are using a co-design approach. This means we are designing something new with the aim of improving life for groups of people. This is a bit different from a lot of research where the aim is to gather knowledge about a specific situation. The research project has then to find the way to a solution that can be said to have at least partly solved the perceived problems. e-Me is of course a high risk project because it is a first shot towards something new. To reduce risks, we are gathering a lot of experience from stakeholders and researchers who are working in the same direction.
As a complement to other more conventional research projects on e-service development, the e-Me project is funded by Vinnova, as "eStudent Passport", with the goal of clarifying the e-Me concept, evaluate its potential for the different stakeholders and point to possible implementation strategies, as preparation for pilots.

SCENARIOS

The students have in the workshops identified eight situations they consider very important and in need of improvement and have written scenarios representing how they would like to experience these situations. We have edited these scenarios and made them into cartoons using personae or fictive persons capturing different student personalities. The main personae is "Nya", a female architect student. In Sweden, a majority of students are female and following university programs. The scenarios are presented in ten cartoons, and can be considered both separately and as a whole. Based on interactions with students we have found two recurring themes that influenced the design of the e-Me: The *"professional student"* and the *"collaborative student"*.

THE "PROFESSIONAL STUDENT" Students today

are very goal oriented and see a strong connection between their education and their future life. Therefore, their choice of education is not just a matter of interest and talent, but also a question of income, life-style and career. This is also reflected in their view of jobs held during studies; most students work alongside their academic commitments.They weigh the jobs' relevance to their eduction with the pay and the work hours. Sometimes they choose less well paid jobs as they believe it will help them make important contacts and look good on their resume/CV. Having one or more jobs on the side makes planning and scheduling important. Getting for instance a text message as soon as changes to the schedule occur is highly desired. In fact, in Stockholm they said they are willing to pay for such a service.

THE "COLLABORATIVE STUDENT" Students

often act in groups, both in school and outside. Group assignments are a significant part of education and sometimes require them to work in various groups simultaneously. They would like more support for these group assignments, such as up to date contact lists, tools for sharing information and support for planning work. This is also connected to students' desire to design their own education, rather than just follow the curriculum of the university. Students share experiences from courses on the same subject, they also try to mix and match courses from different universities. They would like much more support in this, for instance through public student rating of courses from various universities. Also in other areas, for instance buying expensive goods and finding apartments, they are highly collaborative.

# APPLY TO UNIVERSITY AND BEGIN STUDIES

The choice of education is really a choice of life

The choice of education is both important and complex as students feel it's really a choice of life. Their scenarios include the e-Me assisting them with applications, credentials and the overall process of beginning at university. They also point to potential services, for instance stories of the lives of people who have followed other educational paths, as well as the possibility to form communities around aspiring and former students. Comprehensive information on how to study abroad is also requested, including how to live in another country, its culture and economy and how to find a place to stay. Again, information from other students who have been there is ranked highly.

The scenario indicates a larger question aspiring students have which is what their life will be like given many options, including not going to university. Today, students often want to know what a certain education can lead to in terms of careers, income and possible lifestyles. It is our impression that in general, students are more focused on this than previous generations. They are clearly aware that a university degree is not a guarantee for a well paying job.

Students are also asking for more personalized curricula that they can choose more freely. They would like the choice and design of curricula to be influenced by specific jobs and careers, both established professions and more unique types of jobs.

For them, it's a question of forming and translating their dreams of life into a curriculum. They see a potential for new services that support this perspective on the choice of education.
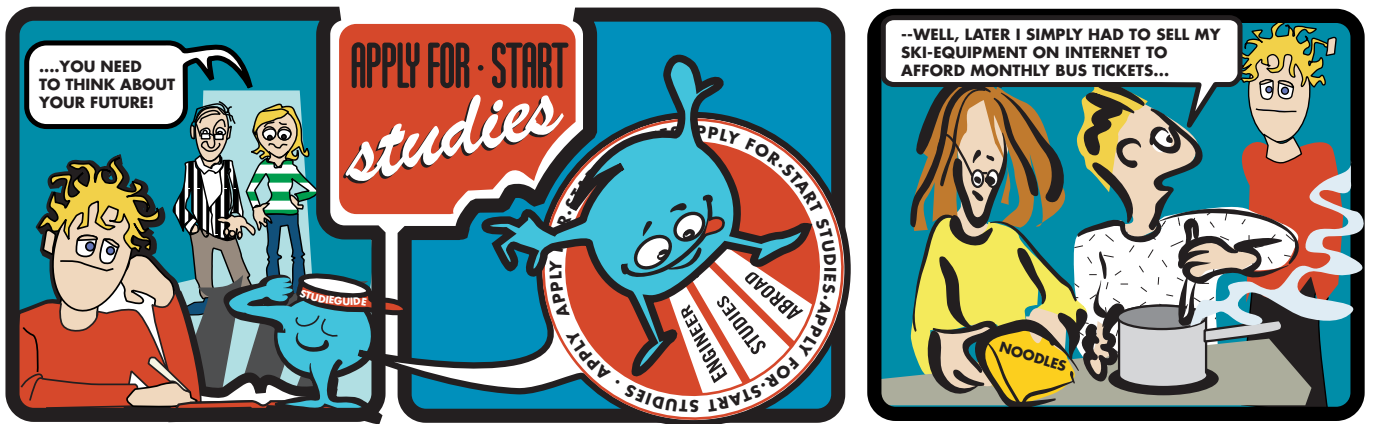
Kalle is a high school student. Last fall he was introduced to something called e-Me. When he logged on for the first time, the e-Me "told" him that it could assist him if he was planning on further education. Kalle became interested since he was planning on going to the university. His parents wanted him to do so, it was important they said. But Kalle knew people in university and all they talked about was how little money they had. Meanwhile, the friends who had choosen to work instead of studying not only had their own car but were also going on vacation.
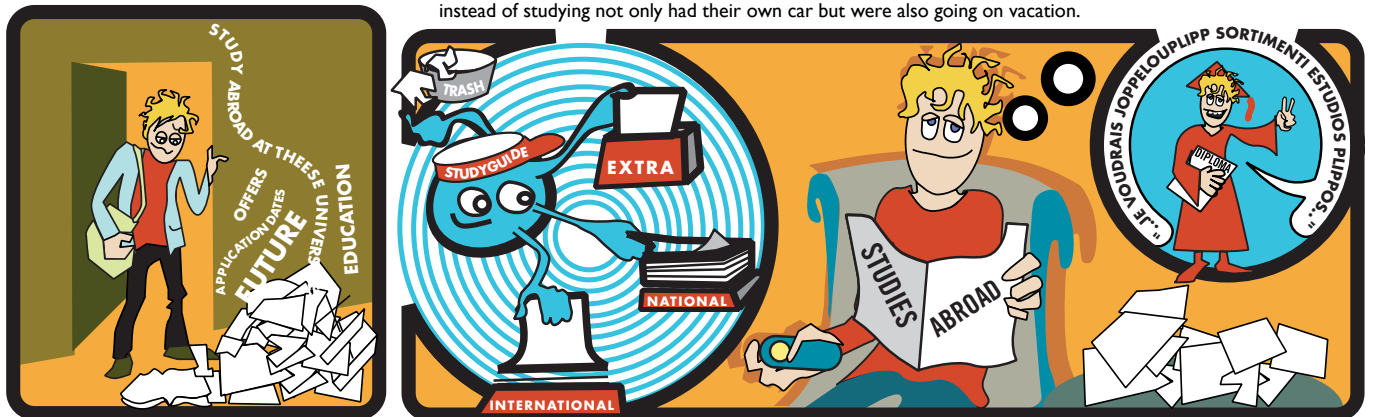
...And he has not exactly grown any smarter from studying the marketing material he recieved. One night Kalle decides to start his investigation of future studies. He looks at both engineering and business administration curricula. The e-Me can quickly list all the national and some of the international universities. Kalle realizes that he can actually get his degree abroad if he wants to. Why didn´t he think of that before?
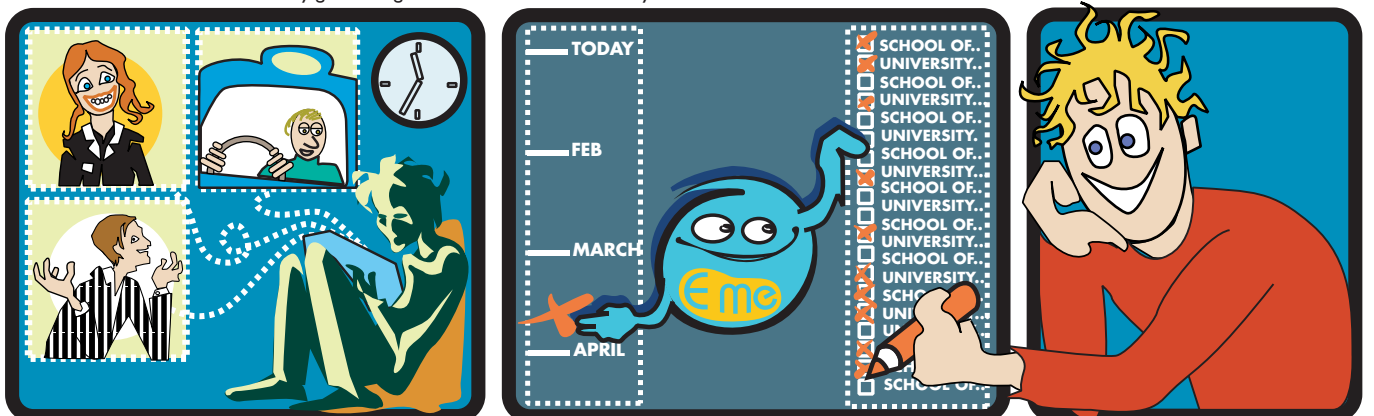
There are also references attached to the courses. Some of them consist of personal experiences. Kalle checks a few videos with reference persons. Since there is still plenty of time until deadline for turning in the application, not all the details are ready. Kalle asks the e-Me to subscribe to information from 10 different places.
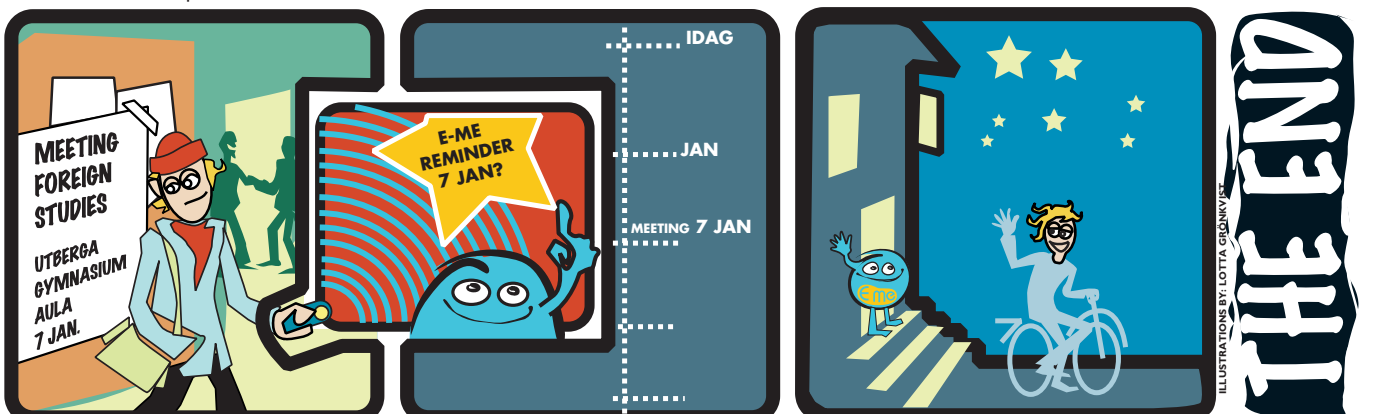
Kalle announces that he is interested in attending a meeting on foreign studies in a neighbourhood school. Just out of curiosity. The e-Me adds it to the calendar and asks if he would like to have a reminder sent as a text message to his mobile phone? Wow, what´s this e-Me thing?

SCENARIO 2
MONDAY MORNING

The weekly schedule message is a top favorite

e-Me manages Nya's calendar. It brings together entries from many different calendars and schedules.

The weekly text message from e-Me with a summary of their personal schedules is a top favorite of the students. Like the personal calendar, it needs to contain all things for the individual, not just classes, lecture and assignments. e-Me simply helps keep track of the students' daily life.

This is one chamber of the e-Me's heart; to manage calendars and also be aware of changes in them. As seen in the scenario; both university, administrative and personal matters are in the e-Me's weekly message.

Simple things like a change of classroom is of value to them, but are in many universities only offered as a note on the door. The "professional student" is beginning to act more as a professional at work and expects universities to treat them with respect for their time and energy.

The scenario illustrates a quality of the e-Me which students tongue-in-cheek call the e-Mum, their electronic mother. It wakes Nya up in time. e-Me helps her reserve money in her account so she can't use it for anything else. Half jokingly, some students said they would like to restrict how much beer they could buy late at night with this sort of limitation on their credit/bank cards.

Transport information and reserving money are just two examples of e-Me services. They demonstrate how simple services can be made much more useful when integrated and made available through the e-Me.

The weekly message service is regarded so useful that the students said they are willing to pay for it.
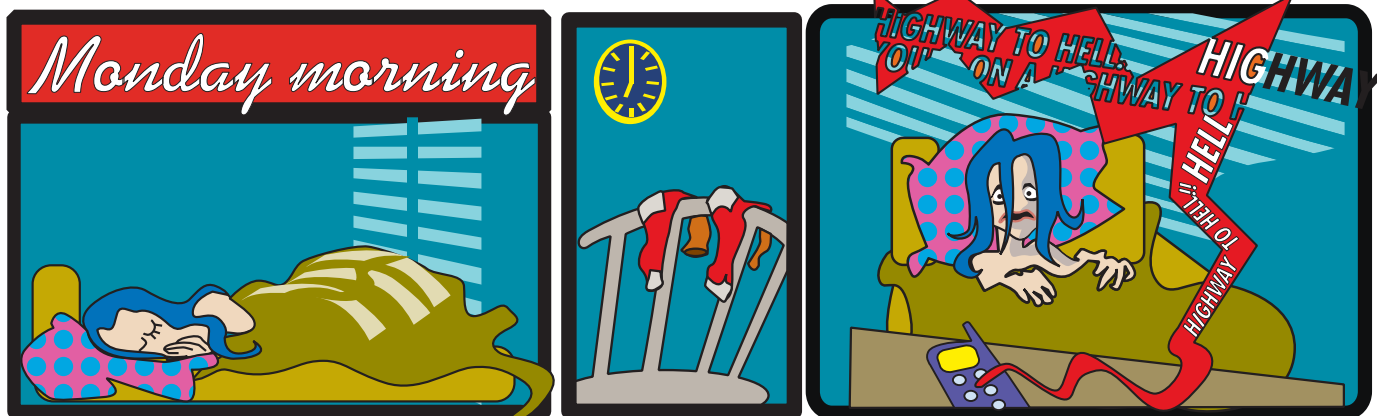
Monday morning

It´s Monday morning and Nya wakes up to the sound of her mobile phone as AC/DC's "Highway to hell" blares out. It might not have been such a creative idea to pick that particular song for incoming messages. The message arrives just in time for her to get up, take a shower, get dressed and get going. She yawns and looks at her watch, only 7 am?!?
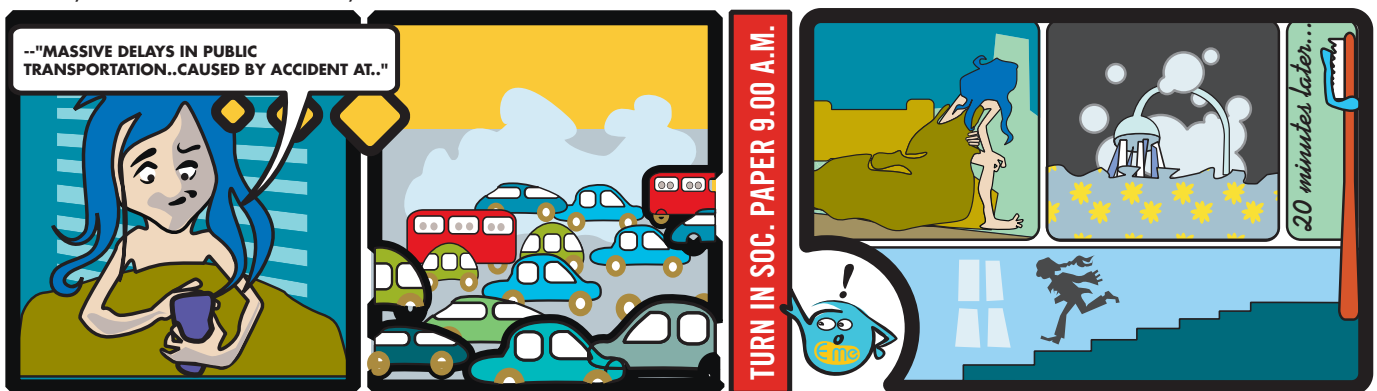
She reads the message that warns of massive delays in traffic caused by some accident. Ah, so that's why the message came in early, usually the Monday morning message doesn't arrive until 7:30 a.m. Oh well, Nya is also reminded that she has to turn in her SOC. paper at 9.00 a.m. True, she shouldn't miss that one. She´d better get going.

On the bus she reads the rest of the message which is her schedule for the week. Thursday Lecture held in A6, to the right of the entrance. There are group workshops and then the pub on Thursday. She also notes that it is time to renew her season bus ticket. She returns a text message with instructions to "reserve €30 " to the e-Me. Might as well make sure she has enough cash.

Ten to nine she arrives at the classroom. Janne is missing. Pia says that he called and said he was late, something about traffic. Nya feels exasperated. Why can't Janne start using an e-Me too? He could use one. She sends a slightly irritated message his way and sits down.

YOU'VE GOT LOTS OF MAIL!

Students have four or more email addresses

The e-Me collects email from all Nya's addresses and prioritizes them according to her wishes which include looking for special offers from certain companies. Practically all the students we have interacted with have four or more email addresses. The first is their "real" personal email and used just with close friends, family and important relations.

Many students use a special email address when surfing the internet and registering at various sites as a mean to avoid spam. This mailbox is almost never opened. On top of these, they are normally supplied with several addresses for their studies and from their employers.

The ability to collect, sort and prioritize all emails are another chamber of the e-Me's heart. This is demonstrated in the scenario when the e-Me notifies Nya of her bus ticket renewal. The e-Me sifts through mail boxes for mail from specific senders, alerting her of some according to her preferences.

These e-Me activities are going on all the time, not only when Nya is logged on to a site or have her computer running. The e-Me will keep track of her electronically and knows how to contact her if something she assigned as high importance occurs. For instance, if a mail comes from a group member she is to meet within a couple of hours, the e-Me could send the mail as a text message to her mobile phone since the mail may contain information she will need immediately.

The e-Me also notifies Nya of important requests from authorities, companies and others which she needs to respond to. The students want forms to appear directly in emails and available to be filled in directly. They also would like to have forms already filled in by the sender and as much as possible completed by the e-Me. This indicates that the e-Me needs to manage and utilize electronic identities. Naturally, students consider it important to closely monitor the e-Me's actions, rather than let it act completely independently.

Overall, students want to receive and read messages independent of whether they are email, text messages or other. They also want messages to be more interactive, like the form in the scenario. In addition, they want the e-Me to be able to communicate with them using all available electronic media, regardless of whether it's mobile phones, email, online chat or other.
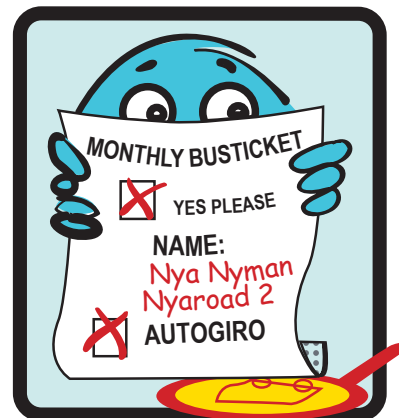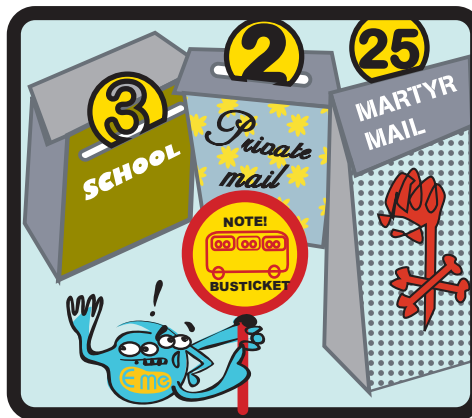
At 11 a.m. Nya logs onto her e-Me. 3 mails in the schoolbox, 2 private ones and 25 in the "Martyr-mail" inbox. Nya calls the address used when surfing for "Martyr-mail". e-Me reminds her again about renewing her monthly bus ticket. Prepared renewal form is attached.
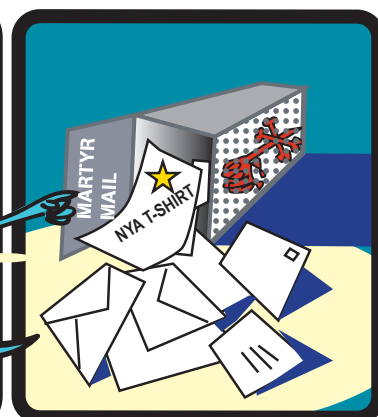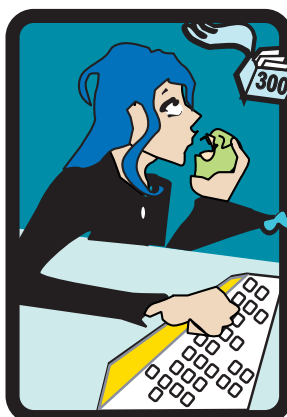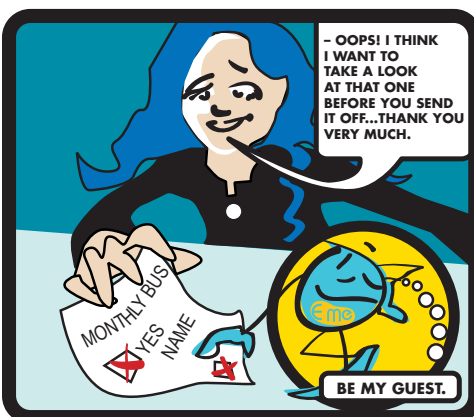
Nya picks up the form, checks the address and clicks ok. Goodbye € 30. She authorizes the money. The e-Me alerts her that one of the e-mails in the Martyr-mail is sent to her by a company which she has accepted to recieve offers from and where she sometimes shops. Perhaps it´s worth looking into?
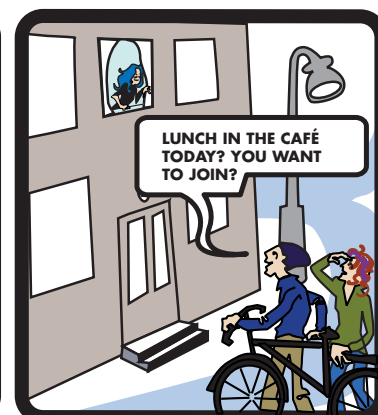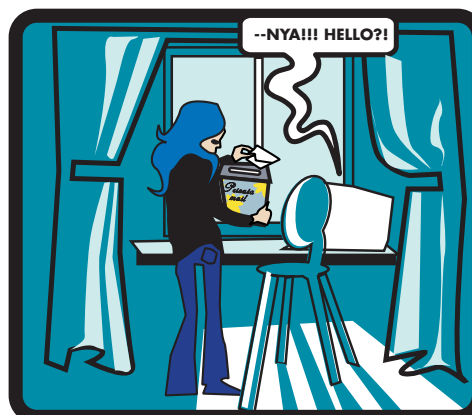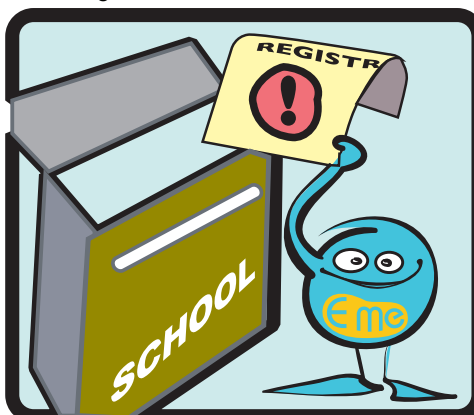
One of the mails in her school inbox is the registration form for her choice of optional courses due Thursday. Nya checks her personal mail and goes to lunch with Lisa and Pelle.
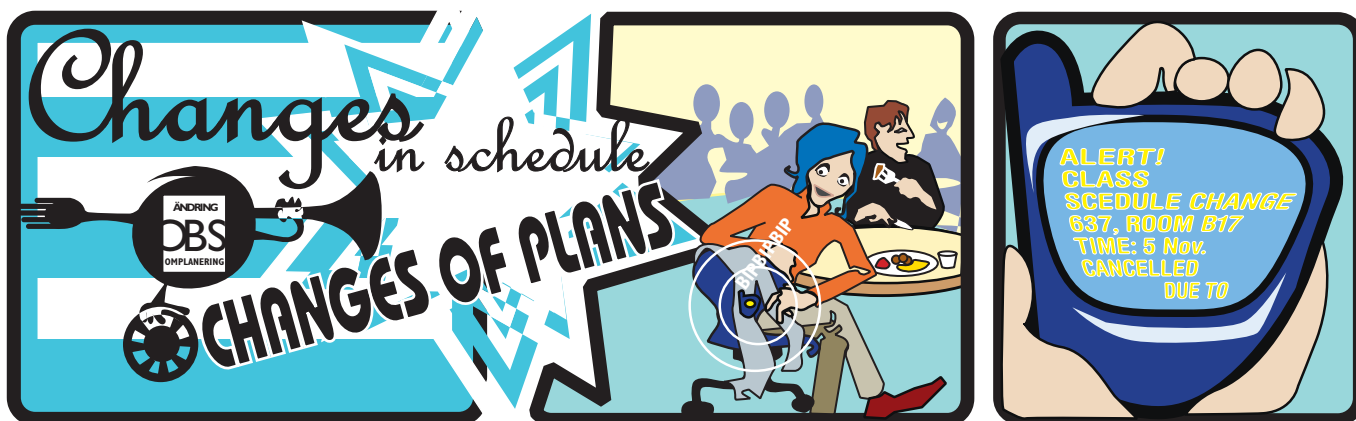
SCENARIO 4
CHANGE OF PLANS

New ways of planning and scheduling

This scenario focuses on planning and re-planning, something that may happen several times a week. Students have said they need better tools to support their group assignments. First priority being up to date contact information as for instance email addresses and mobile phone numbers. The e-Me can manage these and also update the contacts in Nya's mobile phone. This would enable her to send a text message to her group at anytime knowing it will reach the right people the right way. The e-Me should also be aware of such messages in order that it can manage them in the same way it manages email. This will allow the e-Me to forward all text messages in case she accidentally leaves her mobile phone at home.

The e-Me will also maintain an up to date calendar in her mobile phone. Realizing this scenario requires Nya to adapt to new ways of planning and scheduling. The e-Me can serve her best if she always uses the electronic calendar and always keeps it up to date when she schedules things personally.

The problems of planning and scheduling have been recurring topics in all discussions with students and most of them indicate that they are willing to change their behavior to address it. In spite of this, there is no way at this point of knowing how many students would actually do so, or when. Electronic calendars that can be synchronized across groups and support appointment making have been available in standard PC software for years, yet not many use them if their employer does not require them to do so.
Therefore, the design of the e-Me's scheduling assistance must be made to support both individuals and groups who use the electronic calendar fully, as well a individuals and groups who use physical or memorized calendars simultaneously.

Changes in schedule
CHANGES OF PLANS

ÄNDRING
OBS
OMPLANERING

ALERT!
CLASS
SCEDULE CHANGE
637, ROOM B17
TIME: 5 Nov.
CANCELLED
DUE TO

During lunch Nya gets a text message from e-Me telling her that tomorrow class is cancelled. Apparently, the teacher had traffic problems this morning.

PIA:
– HOW ABOUT WE HAVE OUR GROUP-SESSION INSTEAD?

NYA:
– IS EVERYONE OKEY WITH US MEETING UP A LITTLE LATER?

OKAY!!

In four seconds a message arrives from Pia asking if it would be allright to move up the group session to the vacated time. She confirms but suggests they meet at 9.30 instead of 9. After a little while her e-Me gets back to her with a confirmation that everyone has accepted the new time for the group session and that it will now be placed in the schedule.

HIGHWAY TO HELL

Morning has broken
The end

ILLUSTRATION: LOTTA GRÖNKVIST

Nice with a slow morning she thinks to herself. Oh, by the way! She picks up her cell phone and changes her morning message alarm to "Morning has broken". "Highway to hell" gets to be her new pub-reminder tone instead. Nya thinks she is pretty clever after all.

FORM-FILLING AND REVIEWING

Form-filling and reviewing is a third chamber of the e-Me heart. There are two sides to this captured in the scenario. The first is the ability to fill in a form with correct personal information and maintain a record of it. Many students are uncertain when filling in forms electronically. It is not always obvious when a form is received by the organization requesting it. It can also be difficult to be sure of what was received and even more difficult to prove that one has completed it with the required information. The e-Me will deal with this by making it clear when the form is completed and ready to send and will keep a copy of the filled form. This can be thought of as an electronic safe deposit box. The aim is to reach a level of security where records kept there will stand up in court.

The other side of this is the idea of an electronic reviewer. Increasingly authorities, universities and companies are sending forms already filled in with personalized information. In Sweden, most citizens receive their income tax return forms filled in with income from the employer as well as deducted taxes. The electronic reviewer is like a specialized assistant with specific knowledge of one or more such forms. In the scenario, three different reviewers of the tax return forms illustrate the concept. Nya's bank may produce a reviewer that cross checks her bank account for deductible costs (this reviewer would work across her income-tax forms and her bank account). An accounting firm is supplying a reviewer that will look for travel deductions. It'll ask her questions on various trips she may have done in the past year and knows which costs are deductible. The last one is a more dubious reviewer that concentrates on more or less clever tricks that may pass the tax authorities' scrutiny. It's supplied by an anonymous group of students (Slim Shady is a presence to indicate that we are not naïve about what can happen in the e-Me galaxy).

The electronic reviewers also demonstrate different business models that together form the e-Me galaxy. The bank supplies its reviewer free of charge as a service to clients. The accounting firm has produced it as an advertising gimmick. Slim Shady is a student effort and what we call a "user developed service". Students have expressed interest in the possibilities of producing services themselves. This may be done in a "share ware" or "open source" fashion were it is a giveaway that can be further developed by others. It may also be offered as a commercial service where the e-Me galaxy is a framework for development, as well as a market place.
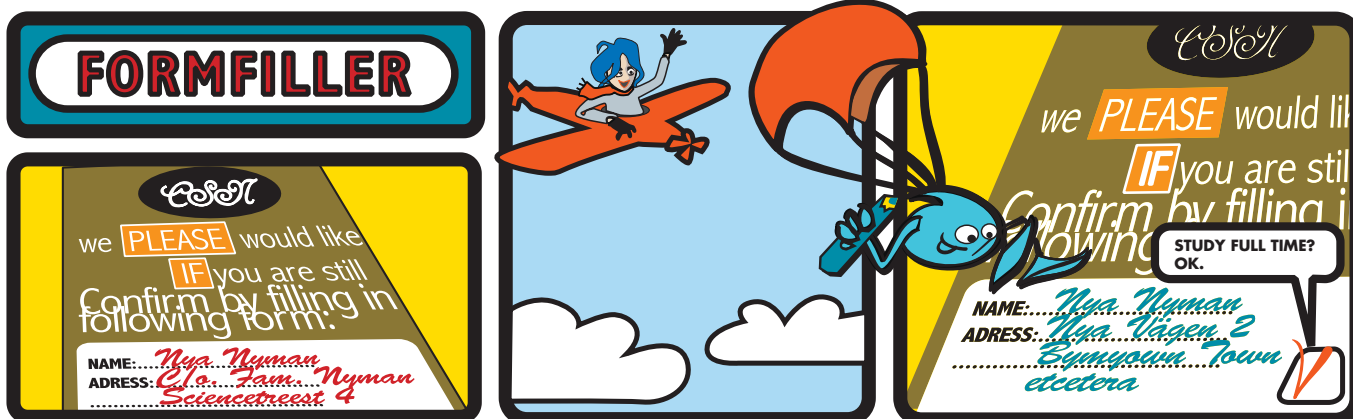
Nya gets a message from the Swedish National Board of Student Aid that she needs to certify that she is still studying. The message consists of a form already filled out. Nya finds that her parents´ address has been used as she stayed there during summer. She drags and drops her e-Me on the form and the address is changed to her present one. She checks the box for full time studies and clicks "ok". Done!

e-Me saves a copy of the form in her archives. Nya receives her tax form. It too is already completed. The only thing she has to do is authorize and send it off. The e-Me notifies her that there are three different kinds of electronic review assistants to this process if needed.
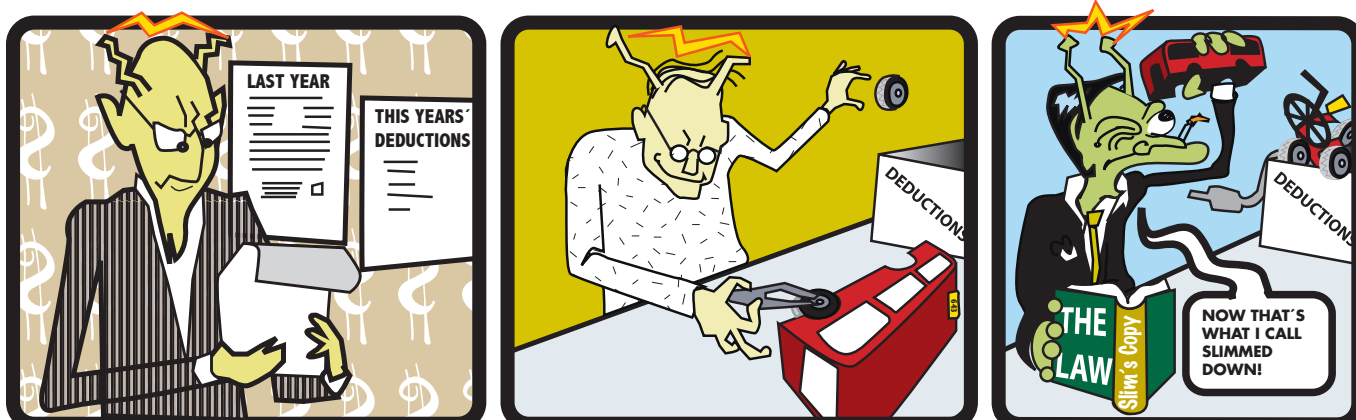
Nya's bank offers an electronic reviewer on income tax returns which promises to check her form against last years´ payments to see if there are any deductions to be made. An accounting firm offers another electronic reviewer that can check for travel deductions. In her community, several members recommend the "Slim Shady", an electronic reviewer that promises to give her as much money back as possible (within barely legal limits).
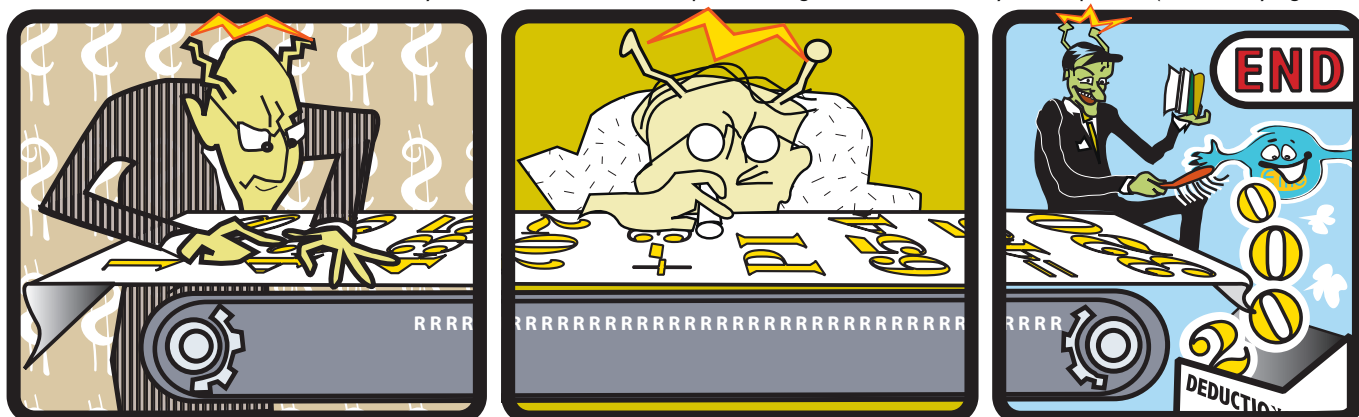
As Nya seems to owe more taxes than she thought, she takes the time to let all the electronic review assistants check up on her income tax return form. In a couple of minutes they find deductions worth € 200 which she had no idea were possible. Talk about time well spent!
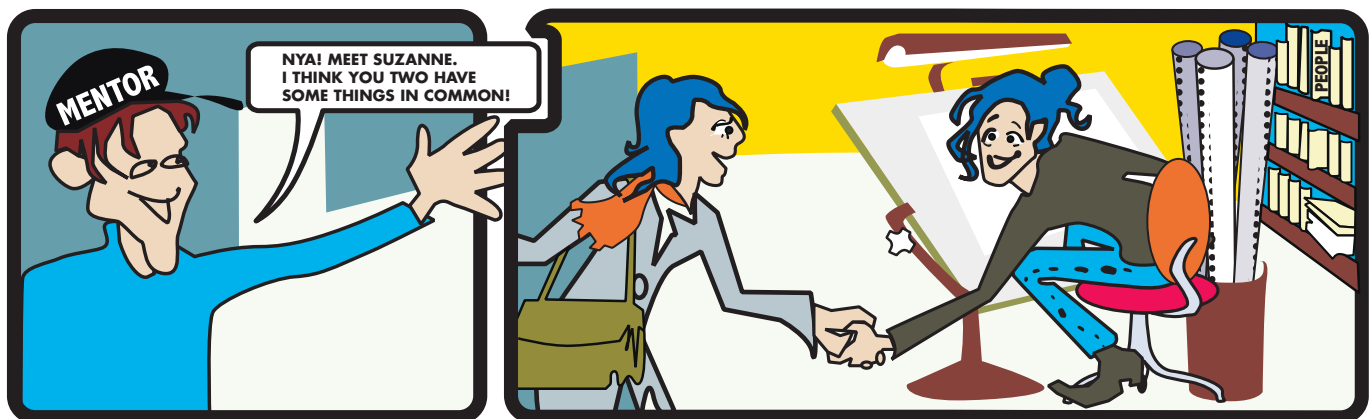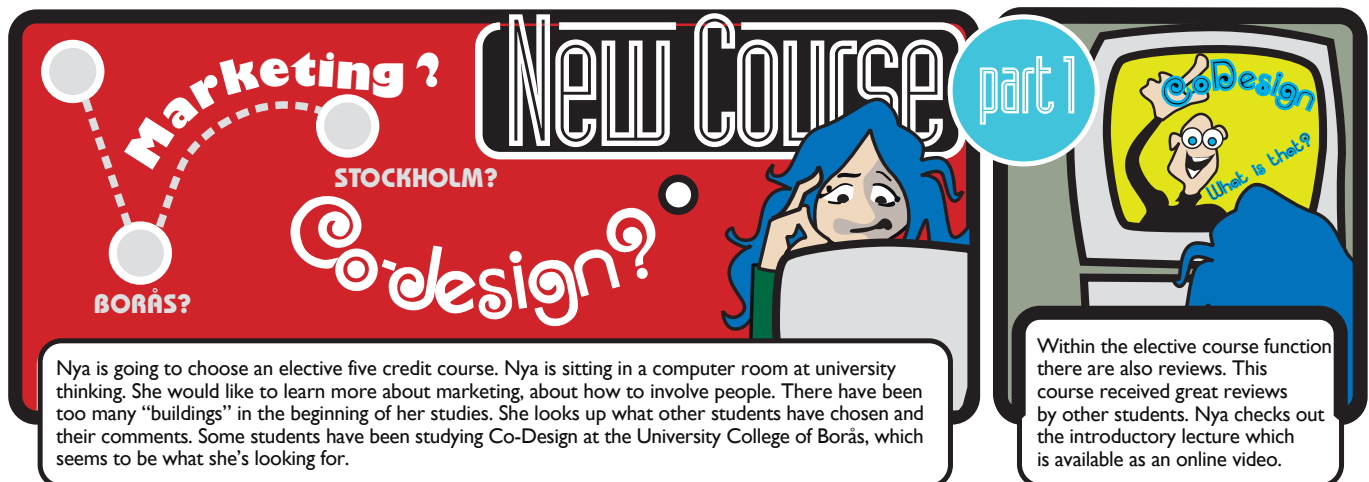
THE ELECTIVE COURSE

Design your own degree?

Choosing elective courses is very important for the students as it's a way to design their own degrees. The issue is thus far more complex than merely filling in a form. The scenario shows how Nya is interacting with other students to get ideas (everything will not be done electronically, not even in the far future). The students have stated that they wish to have comparable student ratings of courses and educations.

Ultimately, they hope for a possibility to design their own education/curriculum. This is a radical proposition as it dramatically changes the role of the universities as a guarantor of a degree's relevance and raises a lot of questions of for instance how employers should understand and compare students' educations.

But the ongoing harmonization of university degrees in Europe and globally certainly makes this more of a real possibility. In a situation were universities have to compete for students, it's not unlikely that this may happen if enough students want it.

The e-Me helps Nya in the application process by filling in forms, attaching CVs/resumes and grades. It also checks the course schedule and tentatively synchronizes it with Nyas'. The scenario also demonstrates how lectures might be captured and distributed electronically. Again, students have expressed a need for this, particularly as support during a course, but also to help them follow courses off site.

There are of course more things to life than education and fortunately e-Me knows about Nyas' spinning class.

New Course part 1

Nya is going to choose an elective five credit course. Nya is sitting in a computer room at university thinking. She would like to learn more about marketing, about how to involve people. There have been too many "buildings" in the beginning of her studies. She looks up what other students have chosen and their comments. Some students have been studying Co-Design at the University College of Borås, which seems to be what she's looking for.

Within the elective course function there are also reviews. This course received great reviews by other students. Nya checks out the introductory lecture which is available as an online video.

It seems to be just what she's looking for. The next day she meets with her mentor at school. A friend of his took the course last year. He thinks the course will be a perfect fit for Nya as she's already into the "co-creative architecture" sphere in contrast to students aiming to become "artist-architects". Nya checks out the mentors' friend and after talking to her decides to take the course.
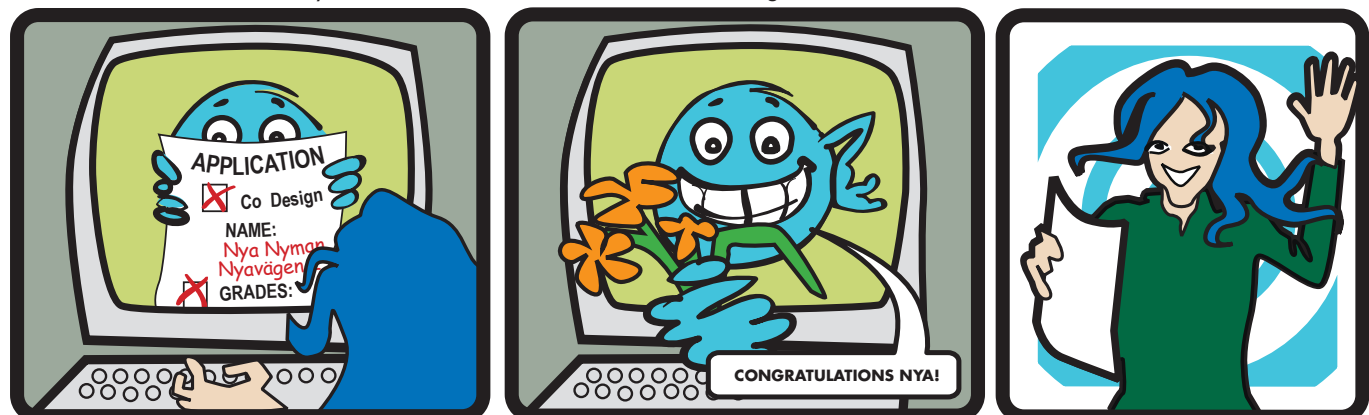
In the afternoon she sits down to apply and plan for the new course. The application is simple and includes a completed form with her grades, etc. She's immediately notified that she's eligible for the course and that it isn't full. She can count on being admitted and will receive confirmation in a few days.
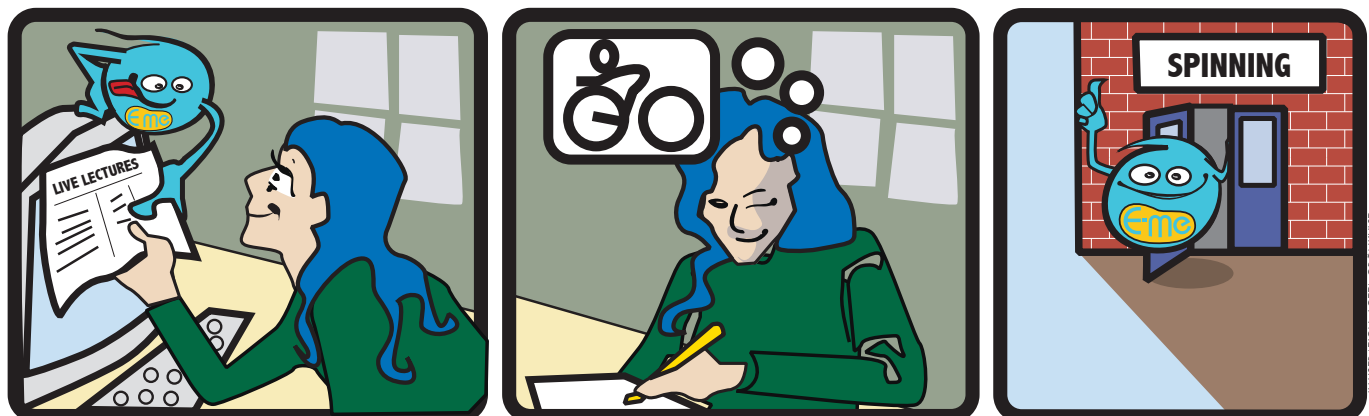
e-Me retrieves the schedule with live lectures and presentations so the only thing she has to do is confirm and move them to her schedule.

THE ELECTIVE COURSE PART 2

Will students write the literature?

This scenario demonstrates some e-Me capabilities such as finding literature in stores and libraries, as well as maintaining schedules and contacts for Nya's new course. It also shows how the e-Me galaxy may function as a market place. Today, students share and even buy and sell notes, copies and summaries. Most of this is a legal market for student produced material, but there's also a significant market for unauthorized copying of books and other copyrighted material. Publishing houses are looking for new ways to distribute course literature and new services such as print on demand allows more precise material at a lower cost. But publishers are also looking for new ideas on literature. Maybe good student summaries could be authorized and resold by a publisher? The e-Me galaxy will be a good market place for these new concepts and will increase the phenomena of "user developed content and services".

The project has introduced some ideas of more radical consequence. For instance, the idea to cease repeating the same course content every year, each consecutive class could instead go on building on what the previous class had done. The courses would then change knowledge transfer to knowledge development.
It's also possible to imagine a collaborative "blog" (a "co-blog") where a group or class would jointly document their work and progress. While these ideas are not necessarily e-Me functions, they illustrate the kind of thinking that emerges with Co-Design, "Turning the internet around" and the idea of "user developed content and services".

The point here is to show that the e-Me galaxy is not ready-made and that all possibilities are predicted and pre-designed, but rather the opposite. Many things are turned upside down with e-Me and the impact is not yet easy to imagine. Maybe the e-Me can emerge as an educational tool revolutionizing the system?

New Course *part 2*

CHAPTER 3-9...CHAPTER 3-9
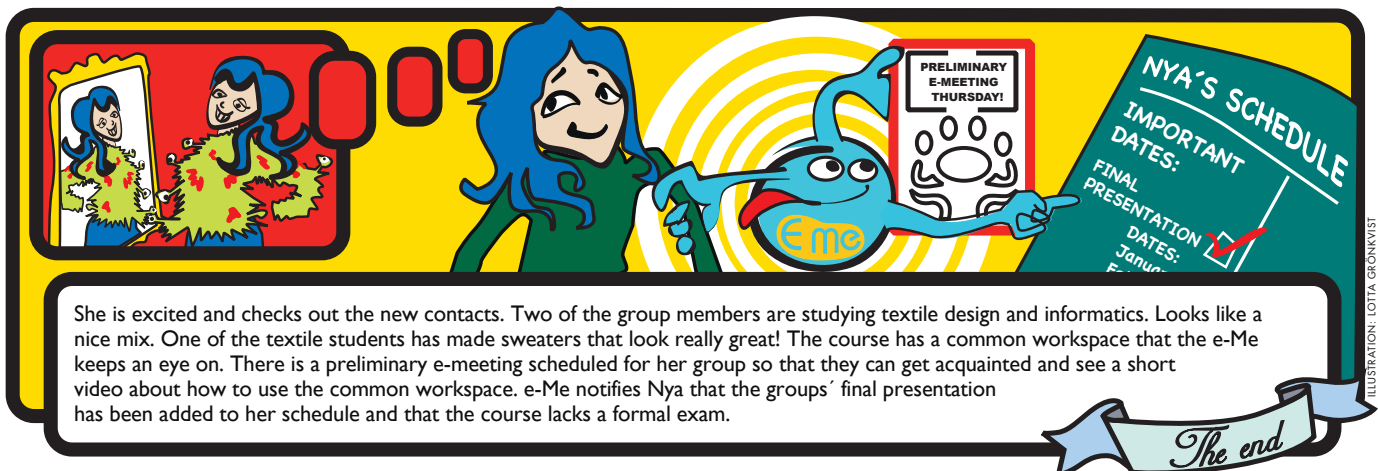
BOOK STORE

POST OFFICE
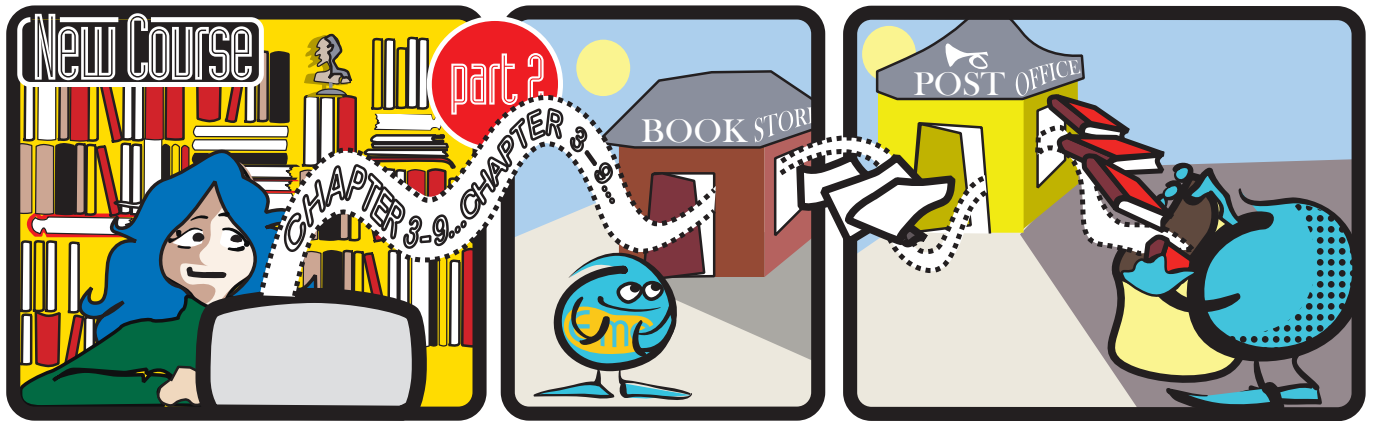
The compulsory literature for the new course isn't too extensive and the teacher had included a description on every book and its significance for the course. Apparently, only chapter 3-9 in the main book is mandatory reading. Nya chooses to buy these chapters and get them printed via the post office.

UNIVERSITY LIBRARY

BOOK RESERVATIONS

STUDENT WRITTEN SUMMARIES

REVIEW-LIST
RED:
YELLOW:
GREEN:

The e-Me sends Nya an order form and reserves one of the other books at the university library. The required book is found in one of the community's reading circles. There are also three summaries written by students, of which one costs money but has gotten great reviews by other students. She is hesitant, however, and decides upon downloading a summary later.

QUESTION No. 1 / 2 / 3 / 4 / 5 / 6 / 7 /

FREQUENTLY ASKED QUESTIONS

CONTACTS
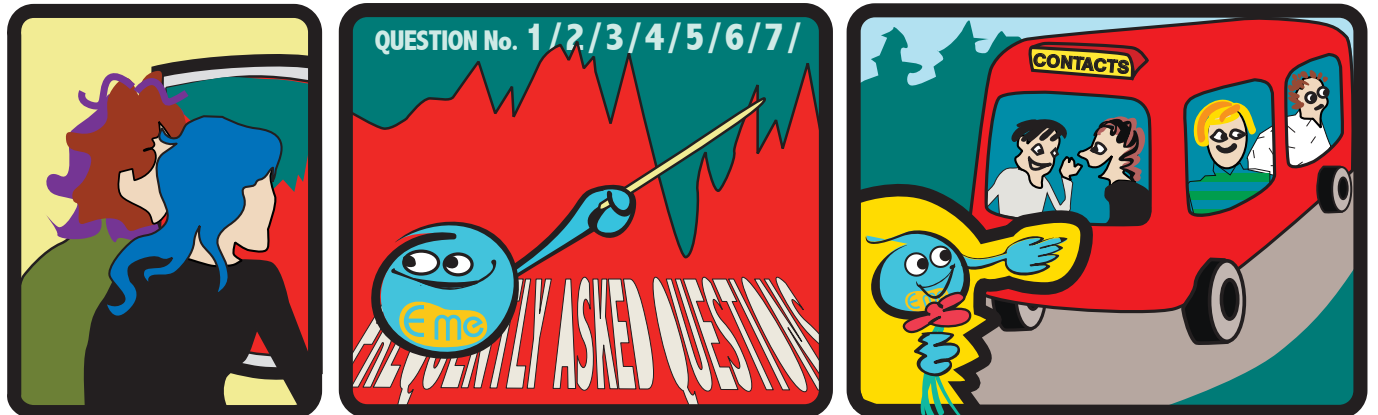
Lisa, Nya´s friend has downloaded an "underground" profile for offers created by some former students. When in use, Nya has access to not only summaries but also examples of old exams. After a few days she receives a message from her e-Me that she has been admitted to the course and that her group members, the teacher and the course assistants have been added to her contacts.

PRELIMINARY E-MEETING THURSDAY!

NYA´S SCHEDULE
IMPORTANT DATES:
FINAL PRESENTATION DATES:
January

She is excited and checks out the new contacts. Two of the group members are studying textile design and informatics. Looks like a nice mix. One of the textile students has made sweaters that look really great! The course has a common workspace that the e-Me keeps an eye on. There is a preliminary e-meeting scheduled for her group so that they can get acquainted and see a short video about how to use the common workspace. e-Me notifies Nya that the groups´ final presentation has been added to her schedule and that the course lacks a formal exam.

The end

SCENARIO 7
FINDING JOBS

New types of student-employer relationships

Finding a job is important to many students as this is a source of income. Students increasingly begin their careers during studies. They say they sometimes choose work for the contacts they can make or because work will provide valuable experience and look good on their CV/resume. Balancing all these perspectives and finding something that can be suitable to their schedules is a complicated task. Today, there are a number of job search web sites, but the students perceive them to be far too crude in terms of how students are able to present themselves and on which criteria they can search for jobs. Given the e-Me's knowledge of the student, it will allow for more relevant matchmaking.

This emergence of a gradual start to careers is also an opportunity for employers. In some professions there are long traditions of having trainees or offering internships, but in many other professions there is only the traditional "get a degree and then a job". Beyond the matchmaking problem, new types of student-employer relationships are possible. We see for instance the emergence of agencies that connect students with companies and match students' needs with subjects for thesis work, papers and research type tasks.
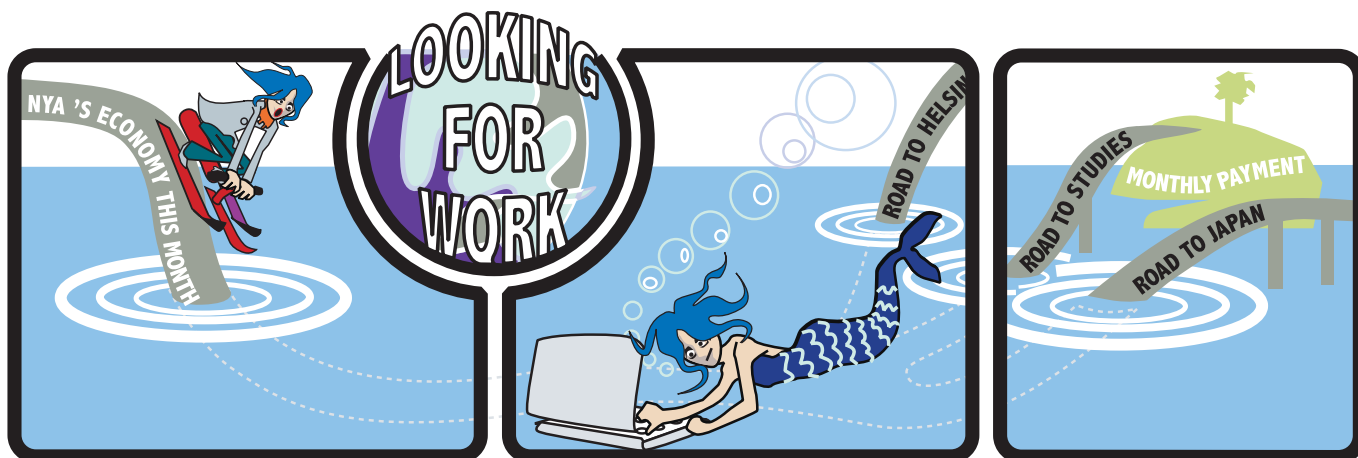
Nya´s bank account is heading for depletion. When she takes a look at her balance she realizes that the situation is rapidly deteriorating. She doesn´t even have money to last the rest of the month. She brings up the homepage of the Swedish National Board of Student Aid and checks how much money she can make before it affects her grants. Nya finds that there is ample space as she hasn´t been working much this semester.
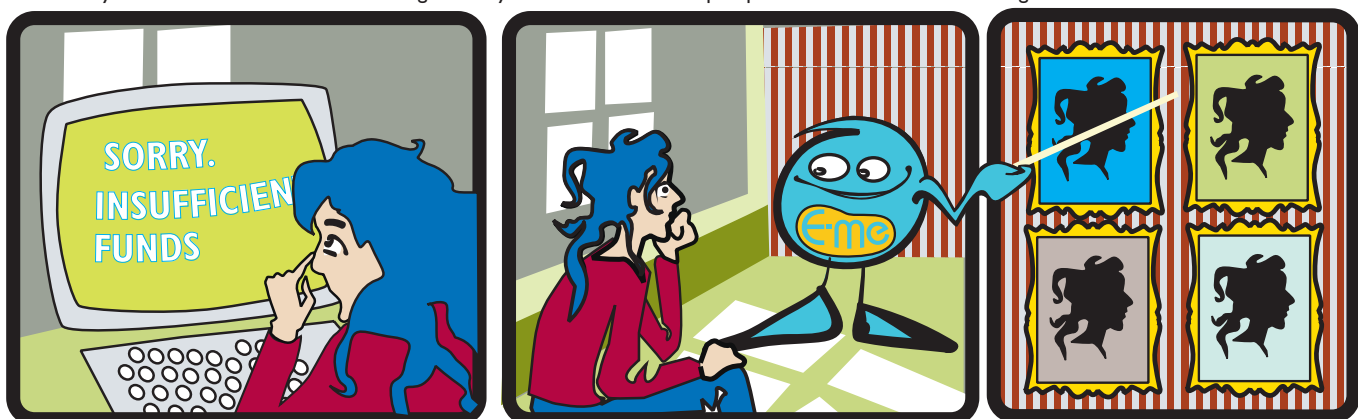
She pulls up the workspace on job applications. Her regular job does not have hours for her right now and her usual agency didn´t come up with anything interesting. e-Me, however, has found four possibilities that match her profile.
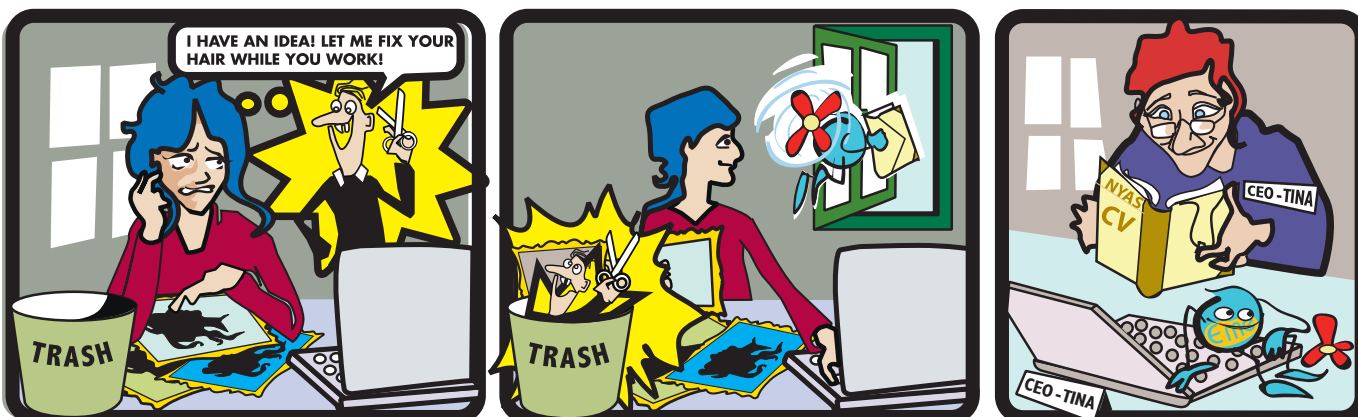
One of the jobs available is from an old friend of hers, but Nya is not comfortable working with him. She picks one of the other openings and sends her CV and standard job application to the employer.
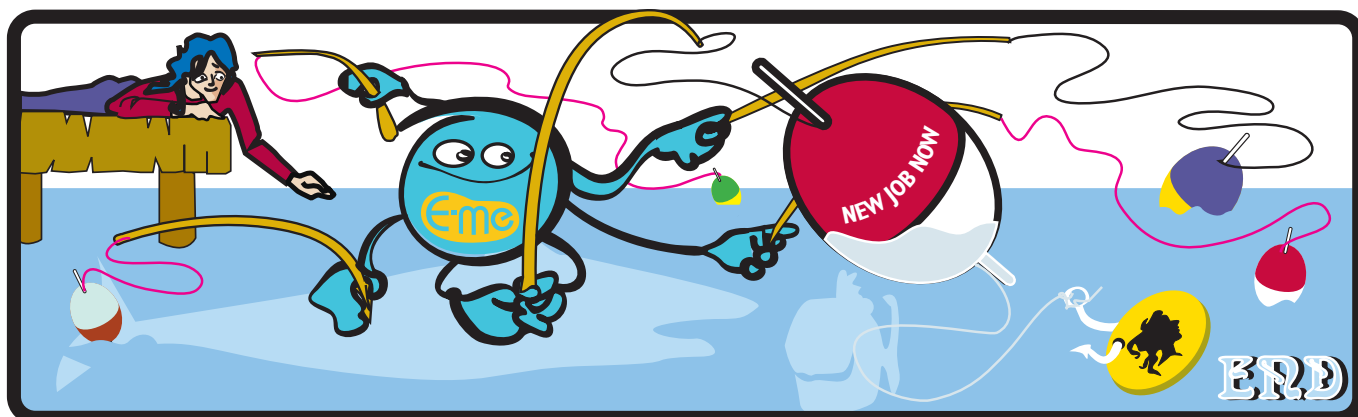
While in the right workspace Nya enters her profile for job searches. The e-Me will use the profile while scanning job sites. It´ll use Nya´s CV by matching it against the announced job openings.

SCENARIO 8:1
THE PURSE CHASE

The dream of good personal marketing

For years there have been hopes and dreams of good effective personal marketing with concepts like customer relationship marketing (CRM). Still, both customers and companies are caught in a kind of a paradox as there is simply too much advertising and customers still have difficulties in finding the products they want.

The e-Me yields a possibility to greatly improve the situation for everyone involved, while being an effective tool for permission based marketing. The e-Me not only effectively blocks spam, it can also scan huge number of mails and sites for offers that are relevant to the student. This is done by giving the e-Me an assignment like Nya has in the scenario where she is alerted to offers and ads she has actually shown an interest in. Again, "Turning the internet around" is key as this would not be easy to accomplish by personalizing an enormous number of sites. It's having the e-Me working for the student that makes this possible.

Do students really want the kind of functions presented in the scenario? Most of them want it at some specific times. For instance, if they are going to visit friends or family the coming weekend, they say that finding a cheap trip is crucial and that they want the e-Me to aggressively look for that. But like many other e-Me abilities it's important that it's easy to control and also turn off.

Some of the e-Me concepts are already in use such as text message alerts when you pass a certain location. The scenario illustrates what can be achieved if the e-Me coordinates this, giving control to the student or consumer.

A compelling idea is to be able to put up electronic notes in strategic places and have your mobile phone alert you when you pass these. For instance, "hanging" an electronic note by the library saying "next time I pass this area, remind me to go and look for Kotler's old book on marketing."

·PART 1 ·PURCHASES
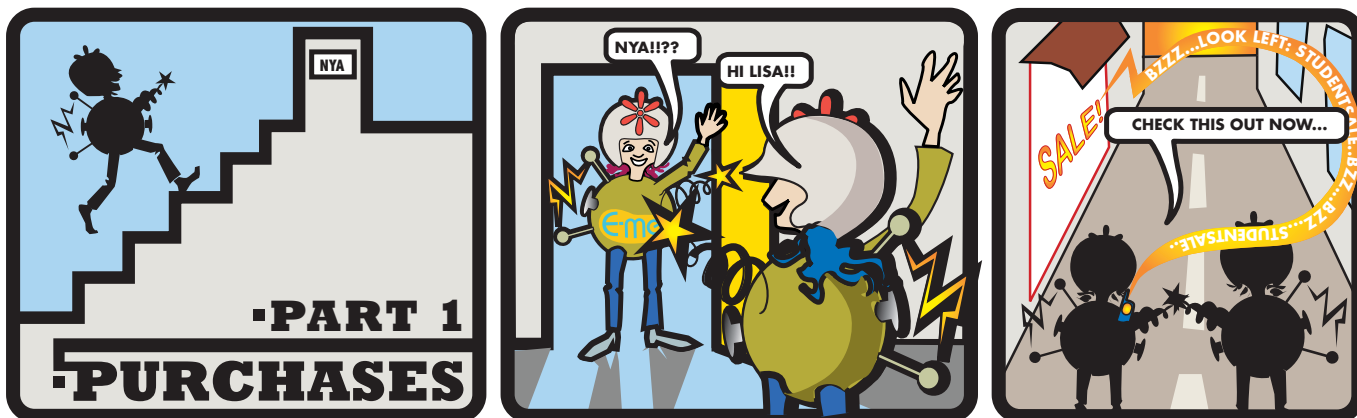
Finally, there was some progress in organizing the student discounts. Nya's friend Lisa had downloaded a profile from the e-Me community that worked really well with her e-Me. Nya took the tip and got one for herself. She opted to use the function that notifies her via the mobile phone when she walks by a clothes store with student discounts, but only if the store is open, of course.

It's easy to turn it off, but it's almost always turned on. The notification is only a special vibration and a message that disappears in a short time so having it turned on is not really a hassle. She has also activated the e-Me service to constantly search for certain interesting items: bargain prices on blank DVDs, cheap trips to the sun and the entire compulsory literature for next year.
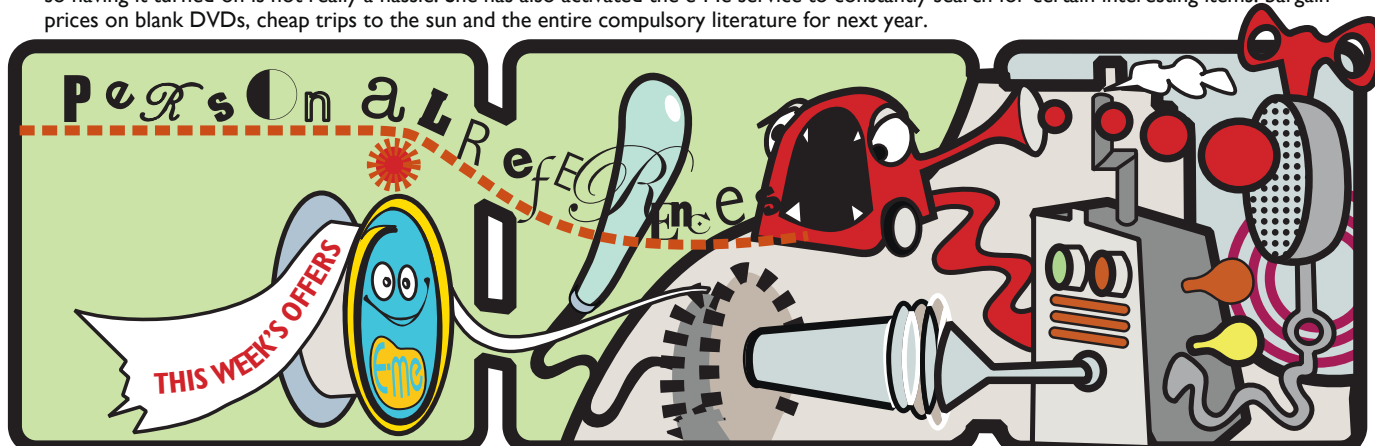
The e-Me gathers everything and displays it in a weekly message. The student discounts are handled by a student owned company. The e-Me sends her personal preferences to the company who then push them through the process and returns offers that match.
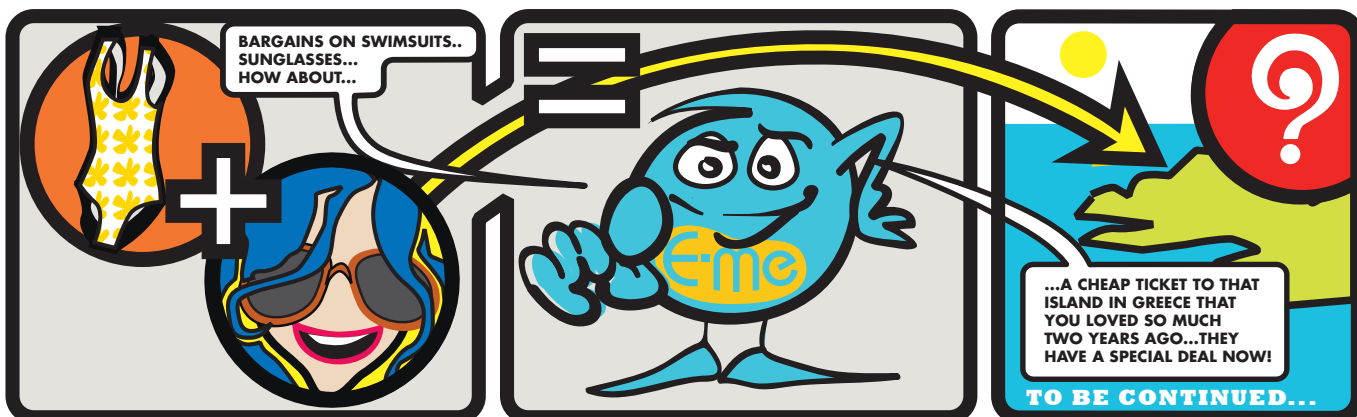
The statistics gathered this way is then used to refine the search process to be even more accurate in finding what she really wants.

CO-BUYER GROUPS

Students strengthen their position in the market by cooperating

This scenario shows how students can shift their position in the market by cooperating. Some students may be experts on computers, some may be great negotiators and some may be good at keeping their cool. These could cooperate in producing the best possible bids, also utilizing a number of more passive students to gain buying power. These things are already taking place. One of the authors took part in such a process twenty years ago when fifteen university students purchased CD-players in this fashion. Now with online communities, the possibility of organizing such "co-buyer groups" is much greater.

What does the e-Me bring to the table then? Several things: The e-Me can find co-buyer groups that are of interest to Nya. The e-Me can monitor the process within several co-buyer groups. Last but not least,
the e-Me offers secure and reliable "identification" in the sense that the organizer knows there are real people with real intents in the group. The e-Me infrastructure will support payments making such co-buying and other business easy to establish.

In this way, entrepreneurial students can easily start a business without heavy investment. This type of "user designed service" is much liked by the students as it offers a sort of cooperative business model.
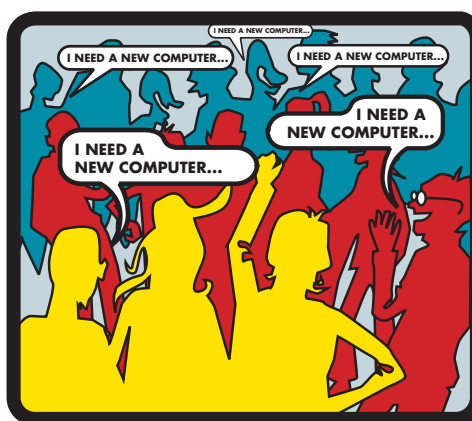
Nya and her friends in the co-design class are in need of new computers. They agree on trying to press the prices by buying them together. One of her classmates Klara opens a new forum to discuss the options available. Nya enters this forum so she won't have to do it all by herself.

After a few days some of the more technologically minded people in the class have come up with three alternatives. Nya supports the opinion that they should opt for the more expensive alternative so they can keep the computers for a while. Most of the other people who have joined the forum agree.
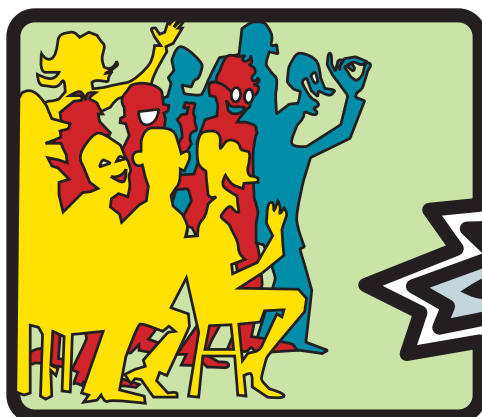
15 of the members, (word has spread, leading to an increased number of participants), decide to buy if the price is below a thousand euro. Klara asks for confirmation so that they may start negotiating. She has gotten some tips from her mentor at school on how to do it.
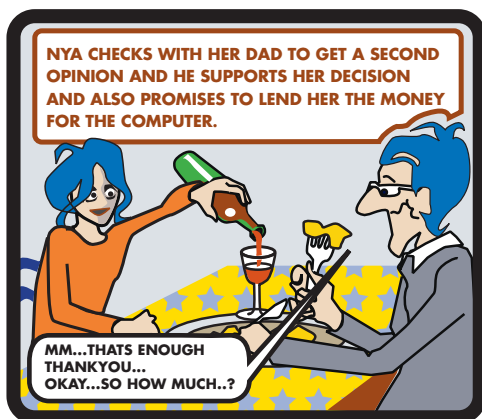
Nya sends her confirmation to Klara and feels relieved. Nice to get away from the trouble of having to look into the matter herself. Nya suggests that Klara should get a USB memory stick as compensation for handling the process, which is unanimously agreed upon.

SO FAR...

Project results clearly demonstrate a demand for an e-Me. The partners point to benefits for them as well, be it new business opportunities, improved services or cost reduction. In addition, there are strong indications that there is a more widespread need for an e-Me among the general population. e-Me and the logo is a trademark and negotiations are taking place to realize the e-Me. As indicated by both students and partnering companies, the e-Me can also be a market place for "user developed content and services" by lowering barriers for individuals and smaller companies to develop and market services.

Partners and others have expressed an interest in developing services for the e-Me. Some progress has already been made: A software company has started developing e-Me compatible software making this their main strategy. Another company has been established to facilitate the academia to business match making for students, in the way presented in the e-Me scenarios. One major European city is negotiating the possibility of being the first issuer of e-Me's to students enrolled in the universities there. One University is on its way to develop a new web-based content management system to deliver services to students in an e-Me way.

The project has also developed some micro-services such as "The verified student"-project which is a collaboration between the Ladok group, The Swedish National Board of Student Aid (CSN), the Swedish National Union of Students (SFS), the private company Mecenat and InnovationLab at the University College of Borås. The secure verification service for students in collaboration between VISA-international and InnovationLab is another example. The Swedish Government has elected the e-Me project as an prototype for its initiative to shape the next generation of eGovernment services.

The Vinnova supported e-Me project (aka "eStudent Passport") may be seen as a milestone for the development of the internet. From our perspective, it is also a good example of co-design. The e-Me is a concept designed with input from many perspectives and stakeholders. More than that, e-Me in itself invites and supports more co-design activities.

THE e-Me CONCEPT IN PERSPECTIVE

We have made some comparisons between the e-Me-concept and some other contemporary initiatives. The first initiative is the ISTAG Ambient Intelligence vision. This vision presents four scenarios containing elements similar to the e-Me. Our conclusion is that the AmI vision clearly points in the direction of an e-Me, but the e-Me scenarios present a more realistic and less technocratic vision based on real needs.

The second initiative is ePortfolio. An ePortfolio is a rich set of data on the student's education and learning. There are many different ePortofolio initiatives, services and software, as well as efforts to create standards and interoperability. These initiatives will be carefully followed and the e-Me should be able to interact with major ePortfolio systems and standards. The third initiative is Web 2.0. We have gone through a number of contemporary trends associated with the internet captured under the label Web 2.0. Web 2.0 definitely points in the direction of the e-Me.

However, two important points can be made. In contrast to many other products/web-based tools on the market, the vision of e-Me is 1) strongly realizing *several* of these trends and 2) the role of *Personalization* and *User Produced Content and Services* is more emphasized in the e-Me than in Web 2.0.

THE IMPORTANCE OF PERSONALIZATION

A design study on different approaches to personalization have been done. The need for powerful yet easy ways to control the e-Me's behavior is crucial to the concept. If one thinks of the e-Me as a electronic self-portrait, it's easy to appreciate the complexity of this task. Rather than using lots of check boxes and multiple choice menus, the design study indicates that the e-Me's *mentality* can be controlled using three dimensions; the mood of the user, wanted and unwanted contacts and the e-Me's assignments, combined with layers of intrests and perspectives. This structure will also allow people to exchange e-Me mentalities and assignments, which will make it easier to start using the e-Me, as well as establish a part of the e-Me galaxy's marketplace.

AND WHERE DO WE GO FROM HERE?...

This booklet is the launch of the realisation of the e-Me. The project will focus on the development of the necessary protocols, software, services, business model and agreements to ensure that students are offered the possbility to use an e-Me. Of course this work will also encompass steps to make the e-Me concept useful, viable and attractive to the general population. These are the critical issues as we see things now,
although we have to be open minded. As Architect Santiago Calatrava said about building the Turning Torso i Malmö "Its a unique project and we all have to change a bit."

These are the main issues to focus upon:
* Design of core e-Me software that can act as a mail, contacts, schedule and notification manager
* Design of protocols for e-Me enabled services such as forms, messaging and e-Me assignments
* Develop and negotiate a first set of licences to allow for one or more pilots
* Design of the e-Me in terms of user interfaces, personalization and core functions
* Inspire organizations to provide students with "e-Me compatible" services

Technical investigations are led by the software company Intelligentor and aided by the partners.
A reality test of standards, and existing service providers' compliance with these is underway. Negotiations with potential licensing companies, authorities and organizations have started.

All together, the e-Me concept is spreading fast and enthusiasm is great, but we know that there are alot of challenges ahead of us. We hope that you find this an intresting and useful concept. Maybe you too can be part of making the e-Me real!

SÖREN BERGLUND, Project Owner and Chairman of the Steering Committee. Sören is the head of Ladok group , the Swedish nationwide student register and based at Umeå University. As a hobby he is involved in a number of European initiatives. *soren.berglund@ladok.umu.se*
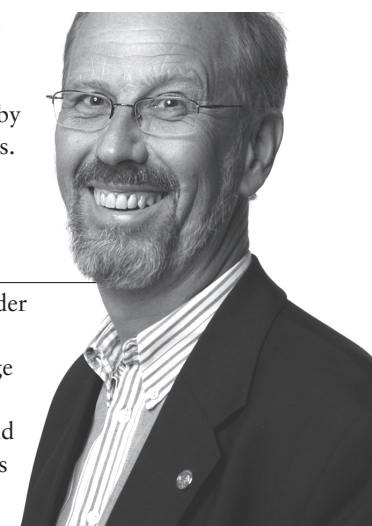
OLOV FORSGREN, Research Leader. Olov is Professor and Research Leader of Informatics at the University College of Borås. A long term and long range visionary, Olov has worked on innovative projects all over the world and had some initial ideas about this project that nobody understood. *olov.forsgren@hb.se*

THIS IS US.

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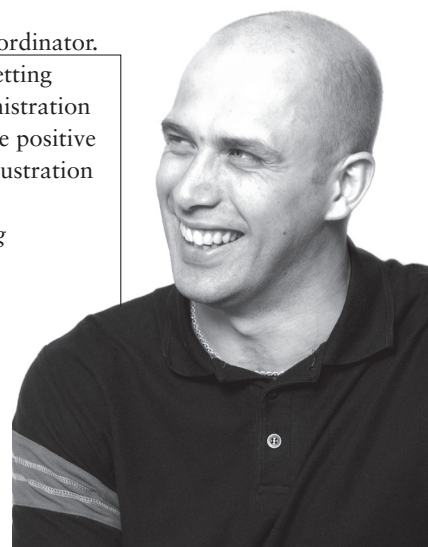
MIKAEL LIND, Assistant Project Manager and PR manager. Mikael is associate professor at Linköping University and Head of Informatics at the University College of Borås. Not finding these tasks enough to fill his agenda, he has started the InnovationLab and is raising kids. *mikael.lind@hb.se*

LARS ALBINSSON, Creative Director and Innovation Leader. Lars is a consultant, business executive and an industry doctoral candidate at the University College of Borås. He wrote a completely ignored column on e-Me's in '96 and hides in the Stockholm archipelago during the night. *lars@maestro.se*
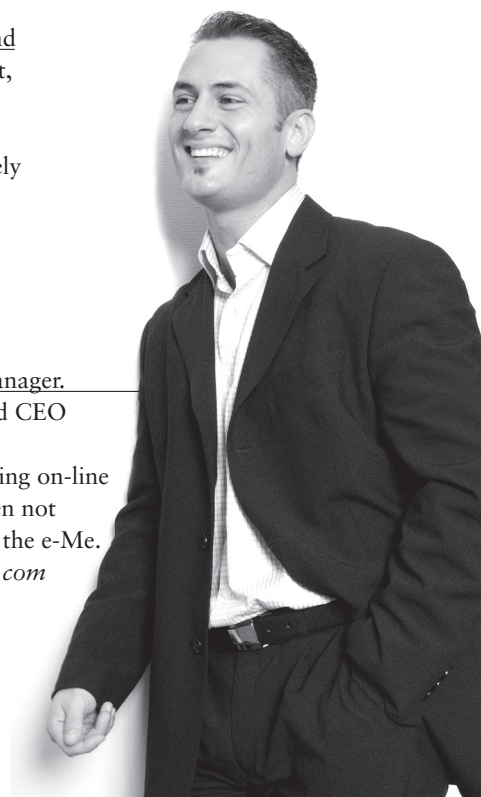
HÅKAN OZAN, Project Manager. Håkan is also founder and CEO of Intelligentor. A young entrepreneur, he's pioneering on-line mobile phone games, when not working 23 hour days on the e-Me. *hakan.ozan@intelligentor.com*

Stupid White Men? In a meeting at an IT company we noted that everyone in the room was a white male, 30-40+ with a background in engineering. Since then, we have used the phrase "stupid white men" (not necessarily endorsing any books with similar titles) to indicate this demographic problem. This is one of many reasons for choosing the Co-Design approach as it helps us put the students in the center of the design, rather than ourselves.

THANK YOU FOR MAKING THE E-ME PROJECT POSSIBLE...

e-Me STORIES & SCENARIOS

THE IDEAL ELECTRONIC GALAXY OF THE STUDENT

AUTHORS: LARS ALBINSSON, OLOV FORSGREN & MIKAEL LIND

This is the story about e-Me. It´s a radical idea of how to help
people manage the rapidly increasing number of electronic services
and communications. Since students are at the forefront of
this development they have been the target group for its design.

A large number of students and partner organizations have
been engaged in this unique research project.

The e-Me will help the student to manage mails, schedules
and contacts. Universities, authorities and companies will
be required to address the e-Me when interacting with
the student.

We call it Turning the internet around. Instead of the
student having to keep track of all electronic services,
the electronic services will have to come to the student.