A simulation of how Localizable Sentences encoded as ISO/IEC 10646 characters could be used in the seeking and the providing of information about relatives and friends after a disaster.

Simulation 1

“Aunt Margaret, which country are we in now?”
“I am not sure, dear. The chef du train said that we are being diverted because there is heavy snow on our original route.”
Margaret Gattenford and her niece are on a tour of Europe.

Albert Johnson is watching the news on television.
“There are reports of heavy snow and avalanches. Some communications in the area are down and several trains are overdue. An Information Management Centre has been set up and people with relatives or friends in the area can contact the Information Management Centre.”
The lady then reads a telephone number and an email address and they appear on the screen.
Albert Johnson writes them down, writing the email address first in case the information disappears from the screen before he finishes, yet he manages to write down both.
He goes to his computer.
He prepares a message.
He uses a system of cascading menus to select sentences. The choice of sentences is finite from a collection of sentences that have previously been encoded as characters, one character code for each of the sentences in the set. He adds information such as the name of his sister Margaret Gattenford and the name of his niece Anne Johnson.

The display on his computer displays the following text.

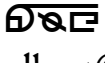
Is there any information about the following person please?
Margaret Gattenford
The person is female.
Also, is there any information about the following person please?
Anne Johnson
The person is female.
The person is the niece of the first person that was named.
The name of the enquirer is as follows.
Albert Johnson
The email address of the enquirer is as follows.
albert@example.com
The enquirer is the brother of the first person that was named.

Albert Johnson turns off the automated localization facility and the text that will be sent by email is displayed.


Margaret Gattenford


Anne Johnson



Albert Johnson

albert@example.com


He clicks the send button.

The train has arrived at a station. It is snowing.

Everyone has been asked to get off the train and people have been informed that they are going to be transported to a nearby hotel by bus.

The chef du train hands a list of the names of everyone on the train to the chef du gare at the station.

The chef du gare will try to send the information to the Information Management Centre.

The Information Management Centre is a busy place.

Albert Johnson's email has arrived, along with many others.

Sonja has displayed the text upon the screen of her computer. It has been automatically localized into the local language.

Albert Johnson hears a noise from his computer.

There is an email, a reply from the Information Management Centre.

-Albert Johnson has his computer options set so that the email will be displayed with all localizable sentences already localized into English.

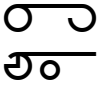
He looks at the screen. The following text is displayed.

The following question has been asked.
Is there any information about the following person please?
Margaret Gattenford
My answer is as follows.
The person is safe.
The following question has been asked.
Also, is there any information about the following person please?
Anne Johnson
My answer is as follows.
The person is safe.

Albert Johnson breathes a sigh of relief.

Out of interest, he turns off the automated localization facility and the text that was received by email is displayed.


Margaret Gattenford


Anne Johnson


Albert wonders about into which language the localizable sentences were localized at the Information Management Centre.

Probably into a language that he does not know anything about at all.

A simulation of how Localizable Sentences encoded as ISO/IEC 10646 characters could be used in the seeking and the providing of information about relatives and friends after a disaster.

Simulation 2

The simulation in pages 2 through to 7 simulates a basic scenario.

The second simulation builds upon that simulation to produce a more complicated simulation.

Please note that the section where Albert Johnson sends his first message is the same as in the first simulation.

“Aunt Margaret, which country are we in now?”
“I am not sure, dear. The chef du train said that we are being diverted because there is heavy snow on our original route.”
Margaret Gattenford and her niece are on a tour of Europe.

Albert Johnson is watching the news on television.
“There are reports of heavy snow and avalanches. Some communications in the area are down and several trains are overdue. An Information Management Centre has been set up and people with relatives or friends in the area can contact the Information Management Centre.”
The lady then reads a telephone number and an email address and they appear on the screen.
Albert Johnson writes them down, writing the email address first in case the information disappears from the screen before he finishes, yet he manages to write down both.
He goes to his computer.
He prepares a message.
He uses a system of cascading menus to select sentences. The choice of sentences is finite from a collection of sentences that have previously been encoded as characters, one character code for each of the sentences in the set. He adds information such as the name of his sister Margaret Gattenford and the name of his niece Anne Johnson.

The display on his computer displays the following text.

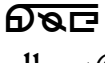
Is there any information about the following person please?
Margaret Gattenford
The person is female.
Also, is there any information about the following person please?
Anne Johnson
The person is female.
The person is the niece of the first person that was named.
The name of the enquirer is as follows.
Albert Johnson
The email address of the enquirer is as follows.
albert@example.com
The enquirer is the brother of the first person that was named.

Albert Johnson turns off the automated localization facility and the text that will be sent by email is displayed.


Margaret Gattenford


Anne Johnson



Albert Johnson

albert@example.com


He clicks the send button.

The train has arrived at a station. It is snowing.

Everyone has been asked to get off the train and people have been informed that they are going to be transported to a nearby hotel by bus.

The chef du train hands a list of the names of everyone on the train to the chef du gare at the station.

The chef du gare will try to send the information to the Information Management Centre.

Unfortunately, when he tries to do so, he finds that all communication channels from the station are down, probably due to the snow.

So the chef du gare is unable to send the information to the Information Management Centre.

The Information Management Centre is a busy place.

Albert Johnson's email has arrived, along with many others.

Sonja has displayed the text upon the screen of her computer. It has been automatically localized into the local language.

Sonja reads the message and looks in the various documents, some of which are on the computer and some of which are available in handwritten form. Information is coming in almost continuously and some other people are doing their best to collate it and enter it into the local computer system.

She can find no mention of Margaret Gattenford and Anne Johnson.

She drafts a response, starting from a copy of the email that Albert Johnson sent, though the sentences are displayed in the language that she speaks, though the names are displayed exactly as Albert Johnson keyed them into his computer. Sonja uses a system of cascading menus to select sentences. The choice of sentences is finite from a collection of sentences that have previously been encoded as characters, one character code for each of the sentences in the set. On her computer the sentences are presented in her own language, which is not English. So the text below is not what is displayed on Sonja's computer: it is what will, if the message is sent, be displayed on Albert Johnson's computer.

The following question has been asked.
Is there any information about the following person please?
Margaret Gattenford
My answer is as follows.
No.
The following question has been asked.
Also, is there any information about the following person please?
Anne Johnson
My answer is as follows.
No.

Sonja is not entirely happy about this reply. She wishes that there was a sentence that would say that there is no information available here at the present time and try to convey the situation that information is coming in almost all the time. So she thinks that once this disaster situation has been resolved, she will try to suggest some additional sentences to become encoded in a later edition of the standardization document. It would also be helpful to be able to send a reference number for each of the two people about whom the enquiry has been made.

Sonja is about to send the email, when she decides to add one more localizable sentence from the set she has available together with one line of text.

Albert Johnson hears a noise from his computer.

There is an email, a reply from the Information Management Centre.

Albert Johnson has his computer options set so that the email will be displayed with all localizable sentences already localized into English.

He looks at the screen. The following text is displayed.

The following question has been asked.
Is there any information about the following person please?
Margaret Gattenford
My answer is as follows.
No.
The following question has been asked.
Also, is there any information about the following person please?
Anne Johnson
My answer is as follows.
No.
Best regards,
Sonja

Albert Johnson is concerned that there is no information available about his sister and his niece.

He notes that there is a personal note at the end and feels somewhat reassured that he has not received just a computer-generated response.

Margaret Gattenford and Anne Johnson have arrived at the hotel.

Margaret Gattenford has being trying to use her mobile telephone yet still cannot get a signal.

Many people have gone to the dining room of the hotel and are eating a stew.

Margaret Gattenford feels that she needs something to eat, yet is rather concerned in case there is any gluten in the stew.

From hearing the staff talking to other people it is clear that although the staff are being friendly and helpful, they do not understand English. This is not an international hotel, it is just the local hotel near the station where the diverted train has stopped.

A member of staff is trying to use a mobile telephone, yet cannot get a signal.

Margaret Gattenford reaches for her mobile telephone and sets up a text message using one localizable sentence.

As he finishes trying, Margaret Gattenford calls out.

“Monsieur!”

The member of staff turns toward her and smiles.

Margaret Gattenford gestures that she would like to throw a message from her mobile telephone to his mobile telephone. He realizes what she wants to do and receives the message.

He looks up from the screen. It is clear from his gesture that he understands what she is trying to ask. He guides them to a small dining room. Some time later he returns with a tray and a meal of pasta and tomatoes.

Margaret Gattenford had thrown one character from her mobile telephone to the mobile telephone of the member of staff.

Upon receipt by the mobile telephone of the member of staff, the sentence represented by that character had been displayed localized into the language of the member of staff.

On the cascading menu from which Margaret Gattenford had selected the sentence, the sentence had been displayed in English. The text that was displayed was as follows.

Where can I buy a meal with no gluten-containing ingredients in it please?

Margaret Gattenford is content, for the pasta pieces on her plate are made in a special standardized shape that is only used for gluten-free pasta.

Sonja is going back through the emails from various people to whom she had had to reply that no information is available.

She studies the email from Albert Johnson.

Other people have been adding information to the database.

She finds that Margaret Gattenford and Anne Johnson are safe.

Sonja is pleased.

She prepares a new email to send to Albert Johnson.

Albert Johnson hears a noise from his computer.

There is an email, a reply from the Information Management Centre.

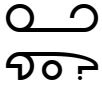
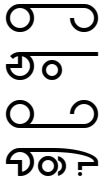
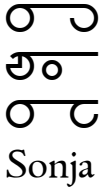
-Albert Johnson has his computer options set so that the email will be displayed with all localizable sentences already localized into English.

He looks at the screen. The following text is displayed.

The following question has been asked.
Is there any information about the following person please?
Margaret Gattenford
My answer is as follows.
The person is safe.
The following question has been asked.
Also, is there any information about the following person please?
Anne Johnson
My answer is as follows.
The person is safe.
Best regards,
Sonja

Albert Johnson breathes a sigh of relief.

Out of interest, he turns off the automated localization facility and the text that was received by email is displayed.


Margaret Gattenford

Anne Johnson

Sonja

Albert wonders about into which language the localizable sentences were localized at the Information Management Centre.

Probably into a language that he does not know anything about at all.

A simulation of how Localizable Sentences encoded as ISO/IEC 10646 characters could be used in the seeking and the providing of information about relatives and friends after a disaster.

Simulation 3

The simulation in pages 2 through to 7 simulates a basic scenario.

The second simulation, in pages 9 to 17, builds upon that simulation to produce a more complicated simulation.

Please note that the section where Albert Johnson sends his first message is the same as in the first simulation.

The third simulation is a variation on the part of the first simulation where Sonja has displayed the text upon the screen of her computer and the text has been automatically localized into the local language. In this variation, the automated localization facility is not available on the computers at the Information Management Centre and Tanja is trying her best to help.

The Information Management Centre is a busy place.

Albert Johnson's email has arrived, along with many others.

Tanja has displayed the text upon the screen of her computer.

There are twelve lines. On each of eight of them, one black rectangle is displayed. On each of three other lines there are two words in characters from the Latin alphabet: the pairs of words look like they could be the names of people.

On the remaining line is an email address.

Tanja has read of how Localizable Sentences encoded as ISO 10646 characters could be used in the seeking and the providing of information about relatives and friends after a disaster and wonders if this is the system in action.

Tanja wonders what to do.

Tanja remembers reading about the system and searches on the internet.

Adding an automated localization system to the email system of her computer will take time and she would need to read about it all first, yet there is an alternative.

Tanja downloads from the internet a font that includes glyphs for the characters. She installs it temporarily onto her computer.

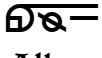
Tanja opens a wordprocessor program then copies the text of the email onto the clipboard of her computer and pastes it into a wordprocessor document.

There are still eight black rectangles.

Tanja highlights the message and formats it with the font that she has downloaded. The symbols for the localizable sentences are displayed.


Margaret Gattenford


Anne Johnson



Albert Johnson

albert@example.com


Tanja wonders what the symbols mean.

Tanja goes back to the internet and downloads a pdf document that lists both the symbols and also the sentences that they represent, with the text of the sentences localized into her native language. The pdf documentation also includes some explanatory text about the system.

Tanja realizes that she probably has all of the information that she needs in order to be able to understand the email.

Tanja starts to read the explanatory text. She notes that the symbols are listed in groups based around the design in the leftmost area of the symbol and that there is an index page of those designs.

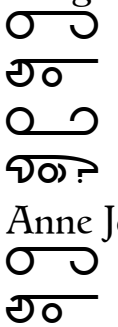
Tanja finds that finding out the meaning of the message is not difficult.

Tanja realizes that three of the lines of text do indeed refer to the names of people.

Now that she understands what the email is asking, she looks through the information that is arriving for information about Margaret Gattenford and Anne Johnson.

Tanja prepares a reply using the wordprocessor.

Margaret Gattenford



Anne Johnson

It took a while, yet she is learning and if another message arrives using this system she will be quicker to understand it and produce a reply.

Tanja prepares an email and copies the text of her reply from the wordprocessor to the email system. Ten lines of text, eight black rectangles.

.Tanja is about to click the send button when she hesitates.

Tanja copies some text from another document onto the clipboard, just to make sure that the text of the message has been cleared from the clipboard. Then, she copies the text of her reply from the email system onto the clipboard.

Tanja open a new document on the wordprocessor and pastes from the clipboard into the new document. The display of the text includes eight black rectangles! Tanja formats the text with the font that she downloaded from the internet and, yes, the symbols are displayed.

Tanja is satisfied, the check took time, yet she has assured herself that the characters were not refused by the email system.

Tanja clicks the send button.

A simulation of how Localizable Sentences encoded as ISO/IEC 10646 characters could be used in the seeking and the providing of information about relatives and friends after a disaster.

Simulation 4

The simulation in pages 2 through to 7 simulates a basic scenario.

The second simulation, in pages 9 to 17, builds upon that simulation to produce a more complicated simulation.

Please note that the section where Albert Johnson sends his first message is the same as in the first simulation.

The third simulation, in pages 19 through to 21, is a variation on the part of the first simulation where Sonja has displayed the text upon the screen of her computer and the text has been automatically localized into the local language. In this variation, the automated localization facility is not available on the computers at the Information Management Centre and Tanja is trying her best to help.

The fourth simulation is an additional section added to simulation 2. It could conveniently be inserted after page 16.

Margaret Gattenford and her niece are still staying at the hotel. The railway line is still blocked with snow.

They decide to visit an art gallery in the town.

Margaret Gattenford and Anne Johnson arrive at the art gallery, which is not far from the hotel. The art gallery has glass doors, which open automatically as they approach. Margaret Gattenford notices the following logo, about one hundred millimetres wide, upon the door, about where a door handle would have been had the door not been automatically operated.

They enter and notice a sign unit. There is some text displayed in print upon the sign. It is in a language that neither Margaret Gattenford nor Anne Johnson understand.

Margaret Gattenford points her mobile telephone at the lower left corner of the sign and the word Welcome is displayed upon the screen of the mobile telephone.

“What happened then?” asks Anne Johnson, somewhat surprised.

Margaret Gattenford explains. “The sign has a passive radio frequency identification device tag near its lower left corner: I scanned it with my mobile telephone and a character code for the message Welcome was sent back.”

“What, in English?”

“No, the character code is language-independent. The software in the mobile telephone then looked the code up in the English localization list stored in the telephone. Someone with a different native language would have a localization list in his or her own language in his or her mobile telephone.”

“How did you know that that would work?”

“Well, I did not know absolutely, yet the blue symbol on the door has the following meaning.”

Some of the signage items each have a radio frequency identification device in the lower left corner.

They proceed around the art gallery, looking at the paintings, sculptures and ceramics on display.

As they are about to leave the art gallery they notice a sign unit with some text displayed in print upon it.

Margaret Gattenford points her mobile telephone at the lower left corner of the sign and the phrase Thank you for visiting is displayed upon the screen of her mobile telephone.

In my research, for research purposes, I have produced some sentence and symbol pairs and encoded them in a Private Use Area.

I authored most of the sentences and phrases myself.. One phrase was suggested by a gentleman who kindly provided translations of some of the initial list of sentences into Swedish. That phrase is as follows.

Best regards,

I saw one of the phrases on a sign in a Google street view image of the foyer of the Museum of Modern Art in New York. It is as follows.

Thank you for visiting

I have designed symbols to represent the various sentences and phrases and have produced various versions of a font so that I could use the symbols and their code points in experiments.

The list of sentences is displayed in the following pages.

The list at the time of writing this text is of 158 sentences and phrases. The list sometimes is extended by a few more items as research progresses, so as to illustrate various possibilities.

Yet the list is incomplete. For example, for the simulations of the invention being used in the seeking and the providing of information about relatives and friends after a disaster, the only outcome encoded is that the person is safe. For a real world system, other sentences, such as for the person being injured and for the person being in hospital and for other possibilities would need to be encoded. I have chosen to leave what sentences to author and encode for the decision of experts in disaster management at a later time if the invention is ever implemented. I have sought to add sentences to explore the possibilities.

Also, there is a sentence as follows.

Where is a pharmacy please?

Other sentences, such as for seeking directions to a railway station and so on would also be desirable if the invention is ever implemented.

The system also includes the following three sentences, which show how detailed requests can be included in the system.

Where can I buy a meal with no gluten-containing ingredients in it please?

Where can I buy a vegetarian meal with no gluten-containing ingredients in it please?

Where can I buy a vegan meal with no gluten-containing ingredients in it please?

Such sentences are important to the people choosing and needing various diets. Other sentences about diets would also be needed if the invention is ever implemented. Such sentences might only ever be used by a small proportion of the population and many people might never encounter them and some people, such as people working in hotels,

restaurants and cafés might only encounter them rarely. However, as localization would, in most cases if the invention is widely used, be automatic, the situation of someone encountering such a sentence only rarely should not be a problem.

As mentioned earlier, I saw one of the phrases on a sign in a Google street view image of the foyer of the Museum of Modern Art in New York. It is as follows.

Thank you for visiting

The sign has localizations in at least four languages. I thought of the idea that if a passive radio frequency identification device tag were fitted, perhaps out of sight, in the lower left corner of such a sign, then a mobile device that has a facility to read from a passive radio frequency identification device could read a character code for a phrase from the passive radio frequency identification device and could then use that character to localize the phrase that is displayed upon the sign.

The 158 mapped symbol glyphs of the Localizable Sentences 027 font.

Greetings

 Good day.

 Best regards,

 Thank you for responding to my question.

Discussion

 The following question has been asked.

 My answer is as follows.

 No.

 Yes.

 Indefinite no.

 Indefinite yes.

 I do not know.

 I need more information in order to be able to answer.

 I refuse to answer.

Weather questions

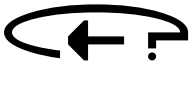
 What is the weather situation where you are located please?

 Is it raining?

 Is it snowing?

 Is it sunny?

 Is it cloudy?

 Is it windy?

 Is it hailing?

 Is it foggy?

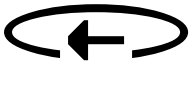
Weather statements

 It is raining.

 It is snowing.

 It is sunny.

 It is cloudy.

 It is windy.

 It is hailing.

 It is foggy.

Seasons

 It is spring.

 It is summer.

 It is autumn.

 It is winter.

Digits

 0

 1

 2

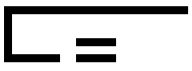
 3

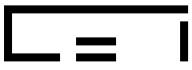
 4

 5

 6

 7

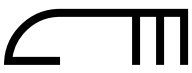
 8

 9

Colours general


The colour is black.


The colour is brown.


The colour is red.


The colour is orange.


The colour is yellow.


The colour is green.


The colour is blue.


The colour is magenta.


The colour is grey.


The colour is white.


The colour is cyan.

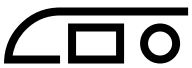

The colour is pink.


The colour is dark grey.


The colour is light grey.


The colour is sky blue.

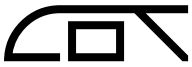
Colours precise

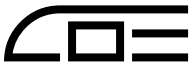
 The alpha component of the colour has the following value.

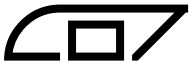
 The black component of the colour has the following value.

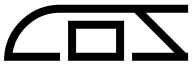
 The red component of the colour has the following value.

 The yellow component of the colour has the following value.

 The green component of the colour has the following value.

 The blue component of the colour has the following value.

 The magenta component of the colour has the following value.

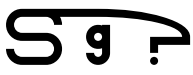
 The cyan component of the colour has the following value.

Colour

 What is the colour please?

Questions seeking a place

 Where is a pharmacy please?

 Where can I buy a meal with no gluten-containing ingredients in it please?
 Where can I buy a vegetarian meal with no gluten-containing ingredients in it please?
 Where can I buy a vegan meal with no gluten-containing ingredients in it please?

Enquiries after a disaster

 Is there any information about the following person please?
 Also, is there any information about the following person please?

 The person is male.
 The person is female.

 The person is the great grandfather of the first person that was named.
 The person is the grandfather of the first person that was named.
 The person is the father of the first person that was named.

 The person is the husband of the first person that was named.

 The person is the son of the first person that was named.

 The person is the grandson of the first person that was named.

 The person is the great grandson of the first person that was named.

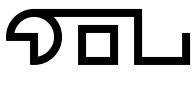
 The person is the cousin of the first person that was named. MALE

 The person is the great great uncle of the first person that was named.

 The person is the great uncle of the first person that was named.

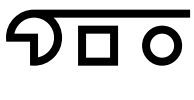
 The person is the uncle of the first person that was named.

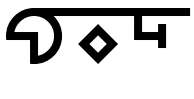
 The person is the brother of the first person that was named.

 The person is the nephew of the first person that was named.

 The person is the great nephew of the first person that was named.

 The person is the great great nephew of the first person that was named.

 The person is the friend of the first person that was named. MALE

 The person is the great grandmother of the first person that was named.

 The person is the grandmother of the first person that was named.

 The person is the mother of the first person that was named.

 The person is the wife of the first person that was named.

 The person is the daughter of the first person that was named.

 The person is the granddaughter of the first person that was named.
 The person is the great granddaughter of the first person that was named.

 The person is the cousin of the first person that was named. FEMALE
 The person is the great great aunt of the first person that was named.
 The person is the great aunt of the first person that was named.
 The person is the aunt of the first person that was named.
 The person is the sister of the first person that was named.
 The person is the niece of the first person that was named.
 The person is the great niece of the first person that was named.
 The person is the great great niece of the first person that was named.

 The person is the friend of the first person that was named. FEMALE

 The enquirer is the great grandfather of the first person that was named.
 The enquirer is the grandfather of the first person that was named.
 The enquirer is the father of the first person that was named.
 The enquirer is the husband of the first person that was named.
 The enquirer is the son of the first person that was named.
 The enquirer is the grandson of the first person that was named.

 The enquirer is the great grandson of the first person that was named.

 The enquirer is the cousin of the first person that was named. MALE

 The enquirer is the great great uncle of the first person that was named.

 The enquirer is the great uncle of the first person that was named.

 The enquirer is the uncle of the first person that was named.

 The enquirer is the brother of the first person that was named.

 The enquirer is the nephew of the first person that was named.

 The enquirer is the great nephew of the first person that was named.

 The enquirer is the great great nephew of the first person that was named.

 The enquirer is the friend of the first person that was named. MALE

 The enquirer is the great grandmother of the first person that was named.

 The enquirer is the grandmother of the first person that was named.

 The enquirer is the mother of the first person that was named.

 The enquirer is the wife of the first person that was named.

 The enquirer is the daughter of the first person that was named.

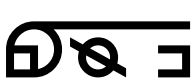
 The enquirer is the granddaughter of the first person that was named.

 The enquirer is the great granddaughter of the first person that was named.

 The enquirer is the cousin of the first person that was named. FEMALE

 The enquirer is the great great aunt of the first person that was named.
 The enquirer is the great aunt of the first person that was named.
 The enquirer is the aunt of the first person that was named.
 The enquirer is the sister of the first person that was named.
 The enquirer is the niece of the first person that was named.
 The enquirer is the great niece of the first person that was named.
 The enquirer is the great great niece of the first person that was named.

 The enquirer is the friend of the first person that was named. FEMALE

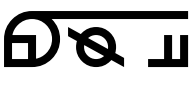
 The name of the enquirer is as follows.
 The telephone number of the enquirer is as follows.
 The postal address of the enquirer is as follows.
 The postal address of the enquirer is now completed.
 The landline telephone number of the enquirer is as follows.
 The home landline telephone number of the enquirer is as follows.

 The daytime landline telephone number of the enquirer is as follows.

 The mobile telephone number of the enquirer is as follows.

 The email address of the enquirer is as follows.

 Please convey the following message to the person.

 The message to the person is now completed.

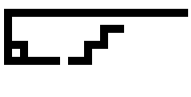
 The person is safe.

Art gallery signs

 Some of the signage items each have a radio frequency identification device in the lower left corner.

 Welcome

 Thank you for visiting

 Stairs

 Café

 Restaurant

 Bookshop

 Information Desk

 Sculpture Gallery