

HOW TO THRIVE IN A DAY AFTER TOMORROW

DIGITAL LITERACY





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I can honestly say that the man in spite of all the technological sophistication and protective measures are still the weakest link and that only **conscious user is also protected user.**



With 20 years of experience in the world of business computing, I'm trying to present the different topics in a simple and non-technical way to explain and demonstrate the dangers and the threats posed to the use of the modern technology.



varniinternet

izobraževanja | predavanja | e-izobraževanja

Young but experienced, actively involved in the area we teach, so we are distinguished by flexibility, commitment, innovation and above all integration in the modern trends and technology.

**IZOBRAŽEVANJE
JE CENEJŠE KOT
IGNORIRANJE**

[Education is cheaper than ignoring]



INFORMATION SOCIETY

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vir: Darja Lavtar, informacijska pismenost 2003



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Information society is human society that makes intensive use of information technology services, especially the Internet.

In the information society it is not just about technological change, it is how we think, behave and live. It is the ground for successful people and problem for information illiterate.

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PRESENT / FUTURE JOBS



SOCIAL NETWORK MANAGER

VLOGGER / BLOGGER

DATA ENGINEER

MOBILE APPLICATION DEVELOPER

DRON PILOT

ENGINEER for SELF-DRIVING CARS

PRESENT / FUTURE JOBS



Ten (10) years ago,
these jobs didn't
exist!

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65%

of children entering school today will,
due to the rapid development of
technology, work in entirely professions
that do not know today an not exist!



**What skills does a person need
in the present and
the future world**



What skills does a person need
in the present and
the future world ?



Perry Timms

HR department

What skills does a person need
in the present and
the future world



Understanding digital technology in the broadest sense!

I'm talking about how to navigate safely and effectively through life with the help of digital platforms.



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**"Above all, we should be
mastering this knowledge
to tackle it more
systematically."**

**Now we learn a lot of
things...well,
by the way!**

**DO WE PREPARE OUR CHILDREN
TO THRIVE IN THE FOURTH INDUSTRIAL
REVOLUTION?**

ICT represent 0.58% in SLOVENIAN CURRICULUM

cooking = 0.73%



Changing a college curriculum is like moving a graveyard--you never know how many friends the dead have until you try to move them!

Calvin Coolidge or Woodrow Wilson

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DIGITAL LITERACY



WEB AND SOCIAL MEDIA

The Internet has become an interactive medium, each user is adding something new to your video, image, etc. You can express your opinion as you do not want them. It is no wonder that the Internet is also called the most democratic medium.



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WHY DESIRING THE WEB?

People are greatly in recent years modern social networks.



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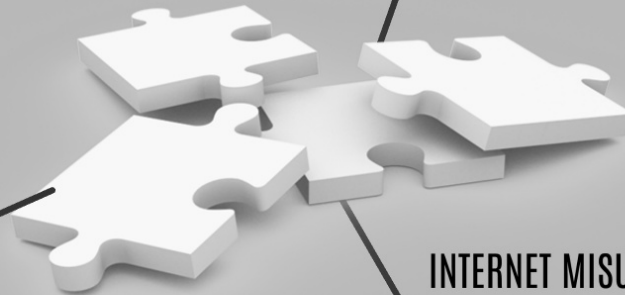
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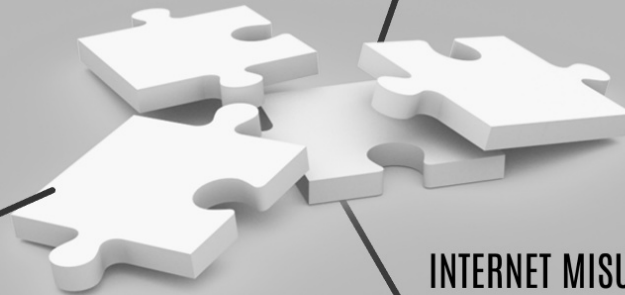
INTERNET MISUSE AND ABUSE

Social engineering is a set of techniques by which an attacker trick or persuade the user to perform a certain activity, and thus allow an attacker access to confidential information of the organization. The attacker makes use of user response to a given situation. Social engineering by its nature, is primarily getting some benefit through abuse of trust or an individual, manipulation.



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OVERVIEW OF WEB

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Web 1.0 1990 ->

It indicates the Web which allowed only searching data and their screening, user contribution virtually non-existent.

OVERVIEW OF WEB



Web 2.0 2002 ->

Is more dynamic, interactive media
Unlike Web 1.0 which was much more static.



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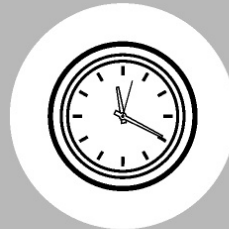
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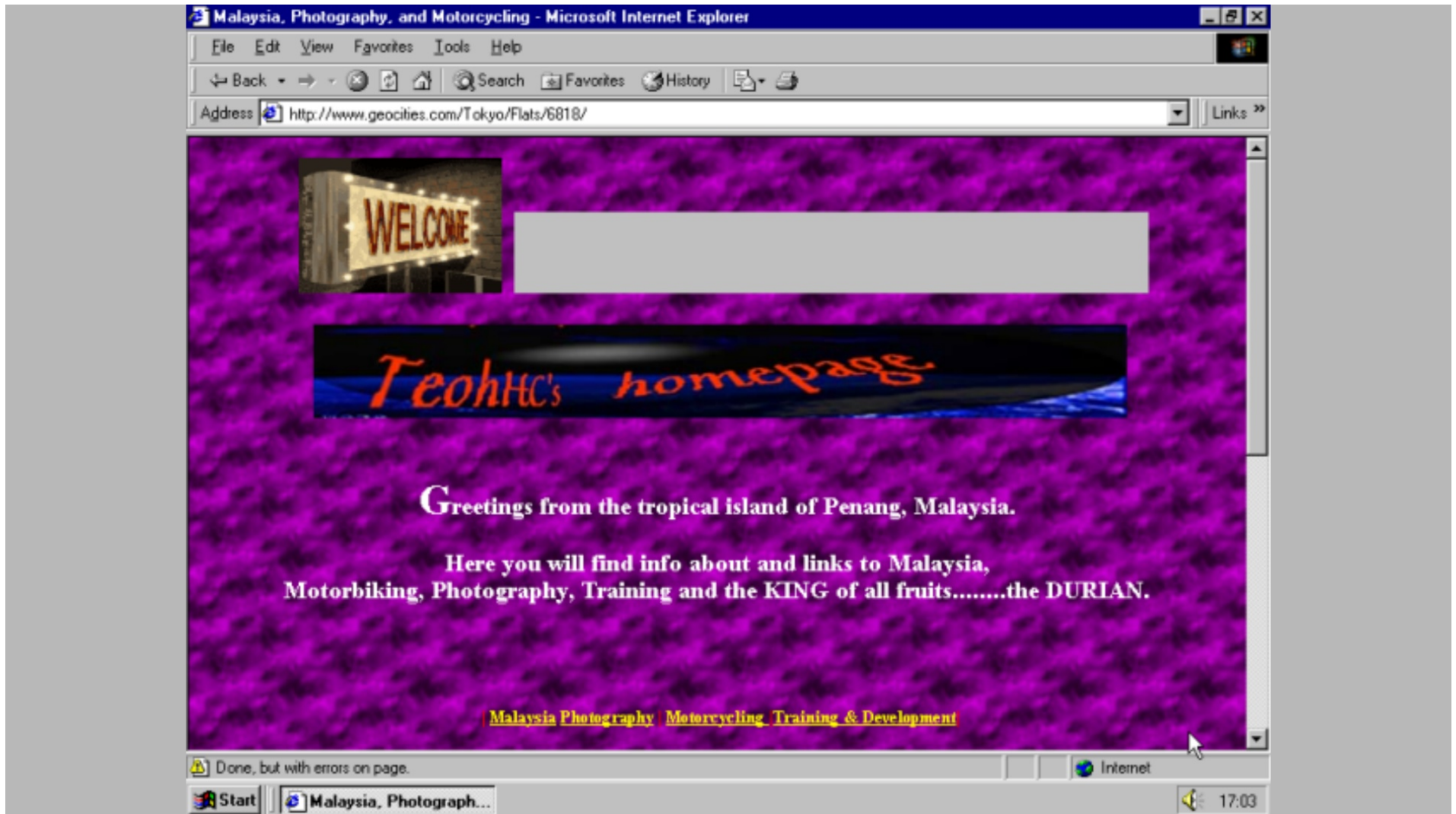
Future?

Web 1.0

The beginnings of the web 1990

Web 1.0 users were limited only for viewing of the content which have been created for them.





Web 2.0

It allows users to interact and collaborate with each other, and furthermore includes users as active members who participate in the creation of content in a virtual community.



Murugesan (2007, str. 34-35) said



main advantages of web 2.0 are:

- **user involvement,**
- **building social networks,**
- **rich and accessible user interface,**
- **simplification in the process of creation and editing content,**
- **development of new apps that use information from different sources.**



SOCIAL MEDIA
is one of the most
important forms of the
modern web

Social networks may vary according to the type of activities and they are divided into four groups:

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Sledenje

(Follow)

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Sledenje

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(Connect)



Sodelovanje

(Collaboration)

Each social network has one or all four types of activities.



Communication among users
Facebook, Twitter, LinkedIn



Distributing content
Flickr, YouTube, Wikipedia, Digg



Data organisation / analysis
aNobii, Netvibes, Del.icio.us

The next big step ?

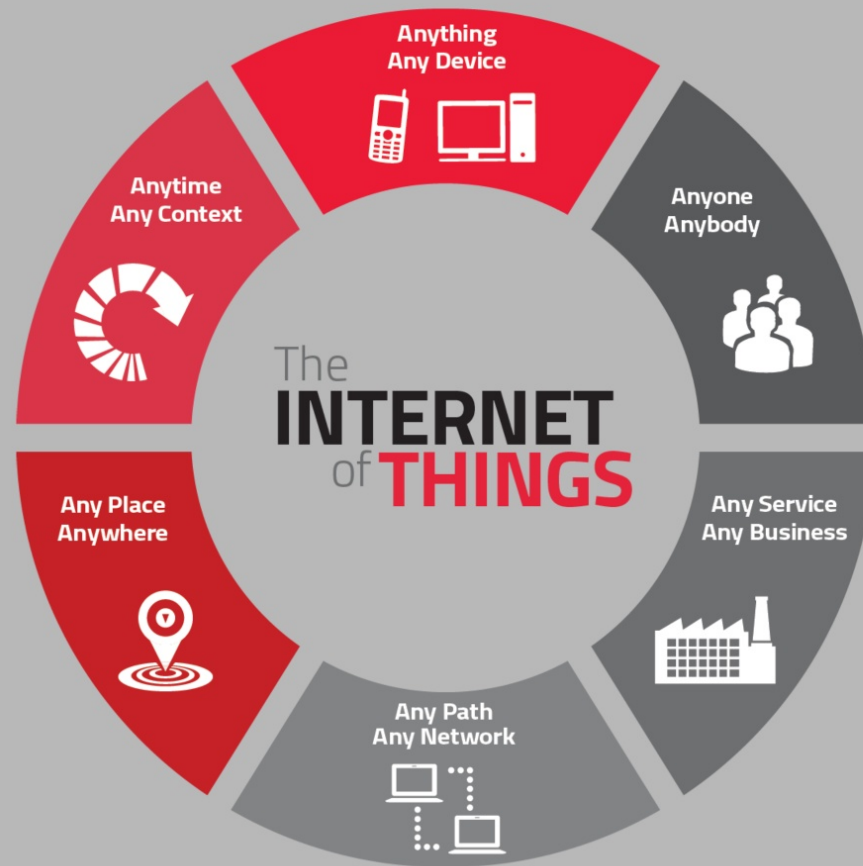
Web 3.0

Internet of Things

The Internet of Things is a concept that represents a new evolutionary stage. It provides a new form of communication between people and things, and between things themselves.

The Internet of Things will deliver new trends and innovations in various fields.

The importance and success of these trends and innovations **will depend on the approach and effectiveness** in tackling structure, privacy and the protection of individual rights.



5G

include high data rate, reduced latency, energy saving, cost reduction, higher system capacity and massive device connectivity.

LiFi



is a technology for wireless communication between devices using light to transmit data and position.

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Artificial intelligence (AI)



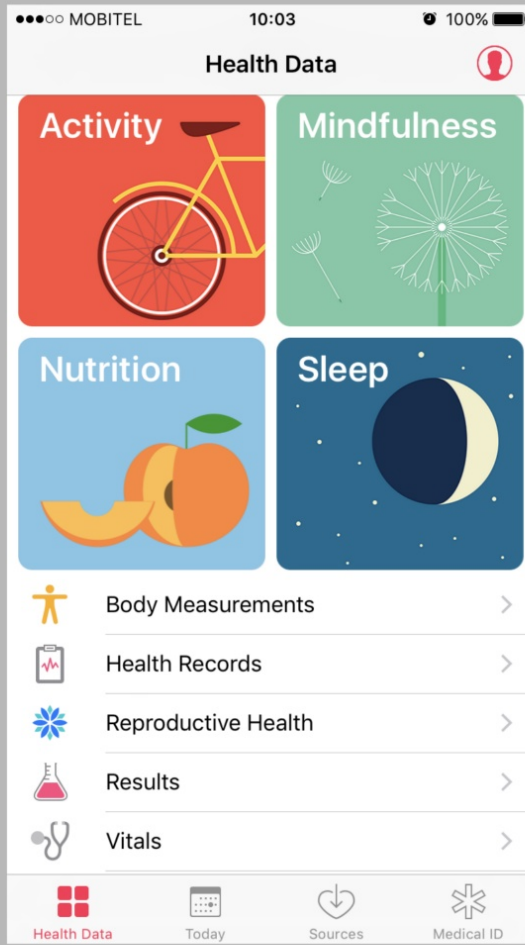
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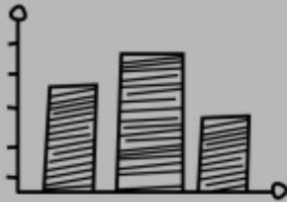




KDAJ GREM SPAT IN KDAJ SE ZBUDIM

MOJE DNEVNE AKTIVNOSTI

Main challenges of IoT



Economic issues

Services which Internet of Things will provide will continue to bring together approx. \$ 200 billion annual profit. **This will bring a new wave of internet penetration, new business models, applications and services in most economic sectors.**

Social challenges



One of the key challenges **is the protection of individual data and ensure privacy.** Concerns in this area is widespread, especially because it can be sensors and smart tags to track the user movement, habits and current preferences. **The scope and capacity of the new technology will only increase this problem.**

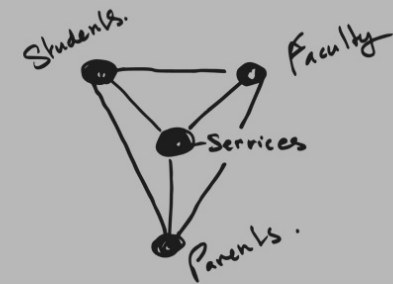


Lack of skills and competences

Since this is a relatively new field, which is also very extensive, on the one hand and on the other hand also be defined differently, lack of knowledge in the field of digital literacy will be a problem for most companies / institutions.

Digital literacy

Digital literacy is one of the key lifelong competencies which includes a knowledge of safe and critical use of technology and information society for work, private life and communication in between.



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is made on the basis of the Decree on the implementation of the EU decision in the field of civil protection- European Cyber Security Agency ENISA.

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An vector attack can abuse a weakness or vulnerability on the attacked resources (including humans) to achieve a specific goal.



BROWSER BASED ATTACK

- Malicious code advertising
- Web application attacks (SQL intrusion),
- Browser-based attacks
- Malicious browser add-ons (updates),
- Abused / fake websites
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- Reuse passwords
- Default / weak service credentials.

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ACTIVE / PASSIVE NETWORK ATTACKS



DATA LEAK



MALICIOUS USB DEVICES



HUMAN ELEMENT ATTACKS

- Social engineering
- Seduction / abuse of business e-mail /, social media, online services
- Malicious email attachments
- Addresses of malicious websites, e-mails and social media,
- Vectors attacks through Microsoft Office programs (macro commands, etc.)
- Scams
- Fraud in the field of technical or user support,
- Telephone scams,
- SMS scams,

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SOCIAL ENGINEERING

it's primarily goal is to get some benefits from manipulation or abuse of individuals' trust.

LIFE CYCLE OF SOCIAL ENGINEERING

VIR: INFORMACIJSKI POBLAŠČENEC

LIFE CYCLE OF SOCIAL ENGINEERING

Collecting information

Uspeh socialnega inženirja je odvisen predvsem od količine in kakovosti pridobljenih podatkov. Ti podatki obsegajo bolj splošno znane podatke, kot so telefonske številke, elektronski naslovi ali poštne naslove, pa tudi bolj osebne podatke, kot so rojstni datum, deželni primek, vzdevek ali kaj podobnega.



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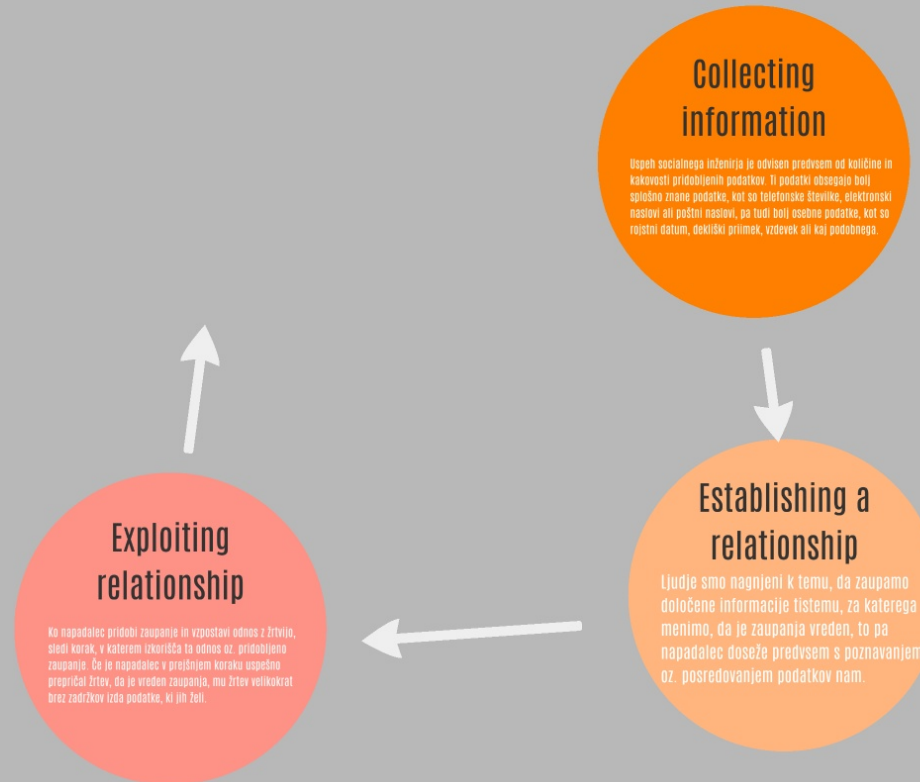
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Establishing a relationship

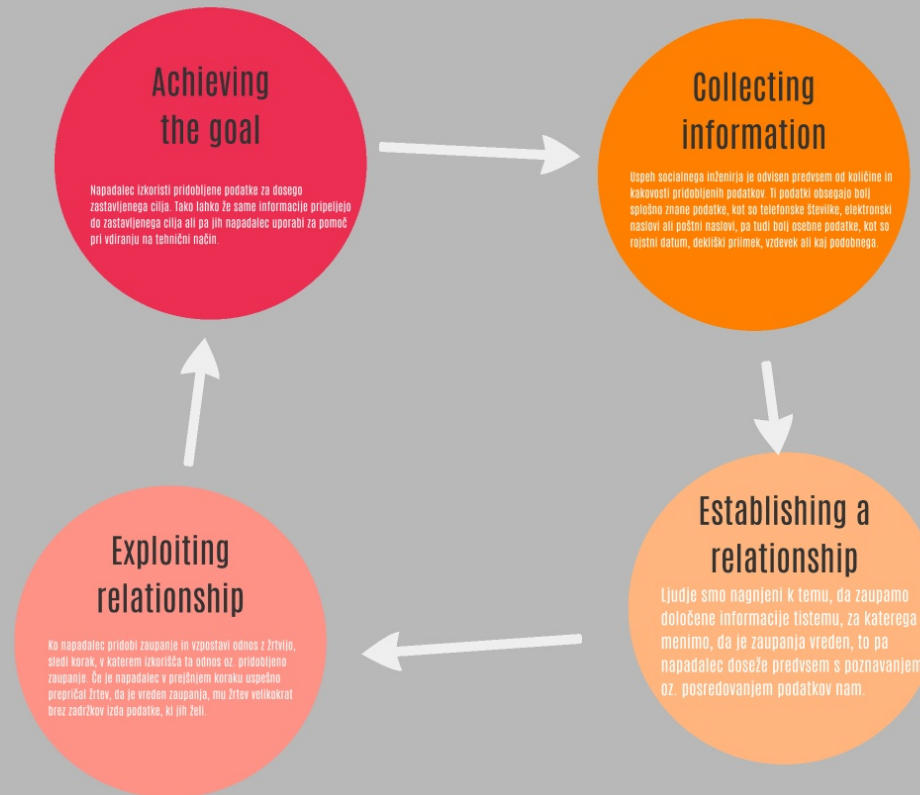
Ljudje smo nagnjeni k temu, da zaupamo določene informacije tistemu, za katerega menimo, da je zaupanja vreden, to pa napadalec doseže predvsem s poznavanjem oz. posredovanjem podatkov nam.

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LIFE CYCLE OF SOCIAL ENGINEERING



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