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CREATING VALUE USING
SOCIAL MEDIA

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Inhoud

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Waarde Creëren met sociale media

Chapter 1: Introduction

The role of the internet and social media in particular in the economy is huge. The effects of social media are not limited to marketing or information technology (IT) but a multitude of departments are involved.

1.1 Introduction of the internet

1.1.1 What happens on the internet.

Today we are part of a digital generation, we can hardly imagine a world without it. Social media can be seen as a part of this internet evolution (which, looking at its impact on our daily lives can also be described as a revolution). The first internet generation primarily looked at information in the 1990's but now we use the internet for more purposes: we share information and opinions, collaborate or participate in online content and so on..

The internet nowadays impacts both online and offline relationships.

Besides this the internet may also have a business impact, for instance: What if an (future) employer can see personal pictures of the candidates. Further than this, the internet also forces companies to adopt social media and even adapt to it because people tend to have more faith in online recommendations about brands and its products than the traditional advertisements of the organisation itself.

It seems as if the concept 'word of mouth' has changed in 'world of mouth'. This refers to the evolution of people talking to their friends and families to the possibility to talk with almost anyone around the globe thanks to social media and the internet. This also counts for organisations who can use it in their advantage e.g. by means of viral campaigns which have a higher spread.

1.1.2 Could you live without the internet ?

An American technology journalist once tried to find out how it would be to go on a whole year without the internet, as he did so, he found out that this doesn't make one lonely or stupid. The internet is where the people are and allows them to keep in touch. He concluded it's important to find the right balance between a digital identity and a real one, as the internet will never replace personal relationships.

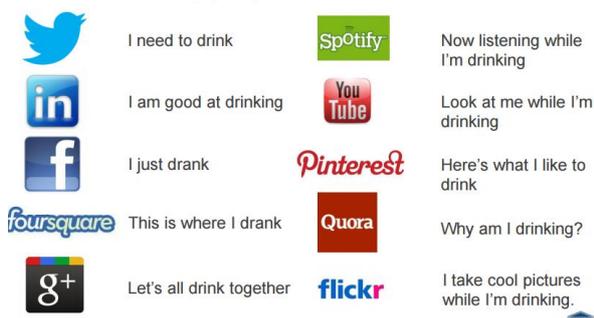
Some say that the internet has had such an impact that you can distinct, other than men and women, a third gender-neutral category: the geek. With the geek we mean, someone who is extremely interested in IT, they are typically highly active on SM tools as Facebook,.. and many of them have an own blog to share their experiences. Geeks are as so not limited to technical profiles (e.g. developers and so). The word geek often has a more pejorative sound to it and should rather be used as a way to refer to oneself as being a believer in or an early adopter of (technological) innovations.

Innovations regarding IT tend to have a great diffusion, mostly they are adopted by different groups in society. Starting with a smaller group of believers (innovators, early adopters), followed by the mass (early- and late majority) and finally also the non-believers or latecomers (laggards).

Despite the fact that so many people make use of the internet and social media and may even be referred to as geeks, the IT industry faces an important challenge to recruit IT-minded candidates and the need for more IT professionals is increasingly growing.

1.2 Introduction to social media

• Based on EPICPonyz (2011)



As shown in the figure many social media tools (or platforms) exist with various purposes.

The book does not intend to give statistics on social media as they are quickly outdated and vary from region, source,..

However some are worth mentioning to give an idea about the emergence and relevance of social media tools.

Facebook is the largest social media tool over the

years, not only in terms of users but also daily active users and average time spent per month. Other social media such as Twitter LinkedIn are increasingly growing, they have fewer users but are growing more rapidly than Facebook.

If you visit some websites you see a lot of them have integrated social media in some form. This can be by means of social actions (where they want to share an opinion) or business actions (where it refers to a desired action that the organisation wants the visitors to do).

Social actions	Business actions
Like	Click
Follow	Visit
Retweet	Subscribe
Blog post	Join
Post a comment	Register
Rate this	Take a survey
Bookmark	Qualify a lead
Recommend	Purchase

Examples of business actions are clicking on online advertisements to reach the company website, visiting the company website, subscribing to newsletters, joining a community, registering for an account on the web shop, taking a survey, purchasing products and so on..

The distinction between social and business actions shows how social media can create

value for an organisation, by sharing content and providing business return.

SM advantages	SM disadvantages
Speed	New environment => learning curve
Scalability	Transparency
Analytics	Undeleteable
Interactivity	Privacy
...	...

Social media has some typical (dis)advantages.

A first advantage is speed: Social media can be used to react or share content faster than traditional media and it isn't limited by geographical distances.

The second advantages is scalability, an organisation can now reach out to far more people with a lower budget than using traditional media. Thirdly: analysing and monitoring social media use is less expensive than traditional data gathering. The big data sent and received by social media can also be analysed using business intelligence tools and IT support tools.

Finally: Social media makes it possible to have a more interactive way to communicate, they are able to ask questions at any time, this contrasts to only receiving information when an advertisement is launched or the organisation publishes information.

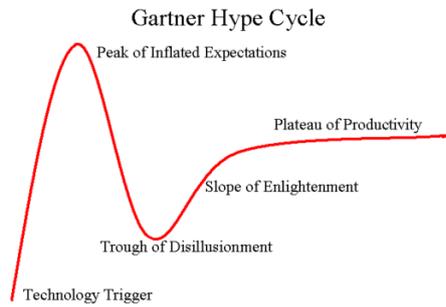
However there are also some disadvantages related to social media.

Social media are relatively new and organisations are still figuring out how to properly use it to create value.

Secondly: Social media are very transparent, this contains the risk of revealing too much private information.

Thirdly: Information on social media is in some degree undeleteable because of the option to take

backups. Even when you delete for instance a photo from your Facebook profile it may still be there. Finally: One of the biggest concerns is privacy, it deals with both ethical and legal issues.



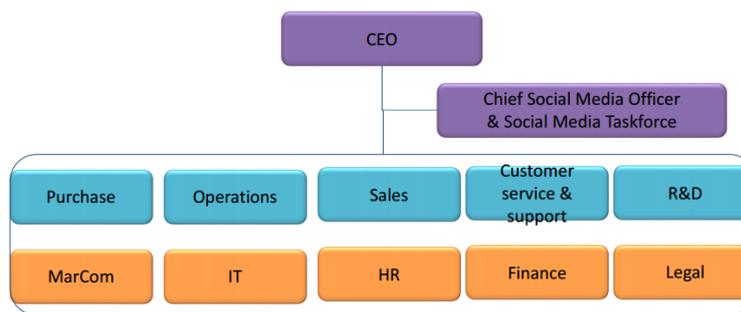
One possibility of predicting the future of social media is the technological evolution graph of Gartner Inc.

The graph assumes that every new technology follows a similar evolution over time, based on this graph we may assume that social media are somewhere between their highest point of visibility and their lowest point. The graph can explain both the current social media hype as well as the social media bloopers. Either organisations have to find a more mature way of working with social media or the social media technologies will disappear.

We may expect social media productivity to rather stay high because of the curiosity (people want to know what other people have or do) and exhibitionism (people want to show what they have or do) that are characteristics for human nature.

1.3 Social media as a multidisciplinary approach

The book intends a holistic view on social media and in what way an organisation can create value by taking a multidisciplinary approach. Social media can be used in all the various specialisation areas of a business. **look at page 11-12 from the handbook for specific examples**



The multidisciplinary approach can be explained by using a typical organisation chart.

Studies have shown that in most cases the marketing and communications and/or the IT department are in charge of managing and implementing social media initiatives, both are supporting

departments in 1/5e -> 1/4e of the cases a department devoted to social media or a cross-functional team was set up. In the figure this is shown as the new management department 'social media taskforce under supervision of the chief social media officer'. This title is relatively new but it is one of the highest-level executives in senior management who reports directly to the CEO and is responsible for all the social media initiatives.

With regard to value creation it should be noted it may significantly raise the productivity and knowledge of the workers but a lot of organisations are struggling to change their business process and organisational structure as well as creating an open, non-hierarchical culture of trust.

1.4 Learning objectives of this book

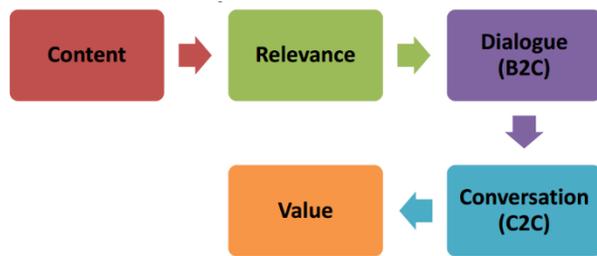
You could read page 14 → 16 in the book

1.5 Overview of the book chapters

The figure on page 16 shows that social media use by organizations should follow one or more social media strategies which should be in line with the overall organizational strategy.

You could read the overview of the chapters page 17 → 19 in the book.

1.6 Takeaways



Social media are always present and may influence online as well as offline relationships between people. Since so many people are using them, organisations are adopting social media to create value. The major value-creating factor is content, the more relevant it is, the more likely people will share and talk about it which may

lead to diverse business outcomes (increasing sales, new customers, customer loyalty,..). A snowball effect may occur with a dialogue between two parties, like formal B2C communication and evolve to C2C communication. This gives new opportunities to SME's that have smaller budgets. It is however important that people are following an organisation before this snowball effect can take place. That is why organisations should pay attention to conversation management (properly communicate) and knowledge management (gather information about the consumers to find out what they find relevant).

Value creation in organisations happens across all the departments even if they are in a lot of cases still located in the marketing or IT department. A better alternative would be to install a social media taskforce or a cross-functional team, but this is in most cases still lacking due to the newness of social media.

An example to illustrate the multidisciplinary approach concerns monitoring complaints on social media and web-care (IT department), which insights can be used in future marketing efforts (marketing) and/or improve products (R&D).

Also collaboration between organisations can be facilitated in connected networks or partnerships.

Chapter 2: Definitions, social media types and tools

2.1 Defining social media

This chapter clarifies the different tools, further in the text it will be explained in what way organisations can use these tools in their benefit. The different tools also tend to fight against each other in order to obtain more user accounts, subscriptions, registrations,.. and thus to obtain more power. A good example is the fight between Facebook and Twitter who tried to make the other platform as difficult accessible as they could using their own platform.

2.1.1 The concept of web 2.0

The official birth of the commercial internet, available to the general public occurred around 1990. This version of the internet was limited to providing information in a one-way communication where information was created and published by individuals in an unidirectional way. Following this web 2.0 appeared, this is often strongly associated with social media and is seen as the next step in the internet. In this version you can create content, share and collaborate among other users, the online content is modified in a rather participatory and collaborative way by all users. It evolved from a one-way communication to a multi-way communication.

Nowadays there are already talks about web 3.0 (a 'read-write-execute' or semantic web = smart or intelligent web) and even 4.0 (a 'read-write-execute-concurrency' or symbiotic web).

Example:

Web 1.0: includes online shopping carts or browsing in online catalogues.

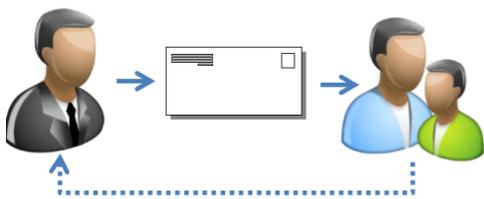
Web 2.0: gives people the opportunity to review the products online by commenting, liking,..

Web 3.0: the website could automatically recommend products that might interest you based on earlier searches and preferences. It gathers information and data and combines it in order to propose other articles that link with your interests.

Web 4.0: even goes a step further by proactively recommending new types of books even before a user has searched for something similar. This symbiotic web is a linked web that communicates with its users in the same way people do with people.

Web 4.0 applications will recognize the person in front of the device and could say things as 'good morning' based on the time zone, could advise you to put on a coat if it will be raining etc..

Hence, web 2.0 talks about the influence of social media on the internet and web 3.0 and 4.0 are more advanced types of using the internet to better serve its users.



The traditional communication model distinguishes a sender, sending a message to a receiver and possibly a feedback loop, it does however not allow multi-way communication, a renewed model seems necessary.



This figure consists of networks (=communities) that are linked with each other, this means that a person can be simultaneously part of different groups. In this model the communication is often initiated by people instead of an organisation, for example by sharing comments about a product. The comments first will spread in the own

network and might spread to other networks. This is called the ripple effect, this refers to circles of waves that are created when something hits the surface of water.

AIDA	Translated to social media
Awareness	See (e.g. banner, link, etc.)
Interest	Click (e.g. banner, link, etc.)
Desire	Like (e.g. landing page)
Action	Use (shop locator for sales, subscriptions, etc.)

The traditional marketing funnel called AIDA can be translated to the functionalities of web 2.0 and social media tools.

AIDA describes the behaviour from prospects to actual customers. First people have to get aware that a certain brand exists, then they may become

interested and start looking for more information and might even consider buying it if they like the information and can use the product. Such a desire may eventually lead to buying the product. The table above translates these aspects of AIDA to a social media situation.

2.1.2 The concept of user-generated content (UGC)

Besides being the technical platform for the evolution of social media web 2.0 also allows users to create and share or to generate content. UGC can be seen as the sum of all ways in which people make use of social media. This section will define UGC in order to show that social media is more than UGC.

A widely accepted definition of UGC is lacking but in general its accepted that it should satisfy 2 assumptions:

- 1) Publicly available: this means that emails, text messages and private communication are excluded and is thus restrictive regarding the classification of social media tools.
- 2) Created by end users: this suggests that it is a synonym for consumer-generated-content/media.

Next in an attempt to define UGC, the OECD proposes 3 requirements that should be satisfied:

- 1) UGC must be published: this is in line with the previous assumption and refers to publicly available information and thus involves the same critical reflections.
- 2) UGC must be the result of a creative effort: this emphasizes that content must be created and may not simply be a replication of existing content, so sharing or copying is not UGC.
- 3) UGC must be created outside the professional routines and practices: this excludes for example communication between an organisation and a commercial market. It refers to (unpaid) users that generate content in order to connect to peers, become recognized as an expert, express oneself. This means that following the definition all use for professional purposes is excluded.

2.1.3 The concept of social media

There are a lot of interpretations concerning the definition of social media, a limited one: "a group of internet-based applications that build on the ideological and technological foundations of web 2.0, and that allow the creation an exchange of UGC." This is restricted to web 2.0 and UGC, a broader interpretation is: "media that people can use to be social or the story in the tactics of each of the hundreds of technologies, all of the tools that are available for you to connect with your customers and prospects, and the strategies necessary to use these tactics and tools effectively."

2.2 Social media types and tools

This section elaborates different social media types and tools per social media type. Classifying them is useful given the large amount of tools out there and it also gives an insight into the way of working of individual social media tools. Two classifications are discussed: (1) based on theories (2) based on common characteristics.

The first classification relies on theories in the field of media research and social process, this says that one can better influence behavior of someone else with personalized and synchronous communication (= social presence theory), social media are more personalized than mass media and allow faster interaction. Social media also allows to provide a lot of information in a small period of time which can result in less uncertainty and more knowledge about facts.

The theories in the field of social process say that people tend to influence what other people think of them by acting as such. Hence, social media can be used for reasons of image-building, combining these theoretical insights social media tools can be classified according to their degree of instant contact and image-building.

Social presence / media richness

	Low	Medium	High	
Self-presentation / self-disclosure	High (individually)	Blogs and fora	Social networking sites (e.g. Twitter, Facebook)	Virtual social worlds (e.g. Second Life: palm trees)
Low (collectively)	-	Content communities (e.g. YouTube, Flickr)	Virtual game worlds (e.g. 3D Game)	

In the columns it is specified that more immediate contact is possible when directly playing in a virtual world than posting messages on Facebook, nonetheless these are more frequently visited than personal blogs and fora. In the rows it says that contributing to an encyclopedia or playing a game reveals less information about one’s personality compared to personal opinions shared on a blog.

The second classification is based on common characteristics, the table below list some of the specific social media tools that correspond to each social media type. It does not list all of them but only the most important, which can be called the social media trilogy, these focus on: social communities, text publishing tools and microblogging.

Social media types	Examples of tools per type	Strategies
<ol style="list-style-type: none"> 1. Social networking * 2. Publish * 3. Photo 4. Audio 5. Video 6. Microblogging * 7. Live casting 8. Virtual worlds 9. Gaming 10. Productivity application 11. Aggregator 12. RSS 13. Search 14. Mobile 	<ol style="list-style-type: none"> 1. Facebook, LinkedIn, G+, Yammer 2. Blog, wikipedia, Slideshare, Quora 3. Pinterest, Instagram, Flickr, Picasa 4. Spotify, iTunes, Podcast.com 5. YouTube 6. Twitter, Tumblr 7. Live365, justin.tv 8. Second Life, Kaneva 9. World of Warcraft 10. SurveyMonkey, Google doc, Alerts 11. iGoogle, MyYahoo! 12. RSS 2.0, Google Feedburner 13. Google, Yahoo! Search 14. Foursquare, AirG community 	<p>New forms of:</p> <ul style="list-style-type: none"> • Communication • Collaboration • Education • Entertainment

The table above does not mention 2 other types: a search social media type and an interpersonal social media type. Regarding the search social media type, search engines can not be considered as social media as they only assist in finding web pages, unlike the name suggests it refers more to search engine optimization (SEO) which is gaining importance due to the continuous growth of pages, blogs,...

The social media types that allow interpersonal communication such as Skype are open for discussion because they don't fit in the conditions of UGC, not necessarily published or outside the professional routines and practices.

2.2.1 Social communities

Social communities are the best known social media type. It's characterized by the 'wisdom of the crowd'. A user can reach out to many people to listen to them or try to get them involved. These communities can be created for external use (for example meet customers) or internal use (stimulate collaboration). These communities can be analysed and monitored as business metrics and knowledge management tools, which should remind the users they serve a business objective.

Community management is very important, you could start off by appointing a community manager (= administrator) and identify community evangelists (= persuade other users to become active members). Different member types exist which can make or break a community: 1) those who create content and become active contributors 2) those who primarily comment on others content 3) those who share and refer content to other people 4) those who simply view content 5) and those who tend to ignore the content. It is better to have a small community with active members than a large one who act more passively. For this reason content should align with the users' needs and content generating should be encouraged.

Some examples of social communities are:

- Facebook: one of the largest social media tools, however they are frequently being criticized for changing its privacy policy without clear communication towards its users.
- LinkedIn: is a networking website for professionals to stay in touch or to find jobs, it uses a 'gated-access approach' which means one can only directly contact his first, second- and third-degree connections. Hence contact requires an existing relationship.
- Google+: a social layer that enhances with other online properties of Google, it's meant to share and organise information.
- Yammer: a private social network for organisations which includes productivity applications.

2.2.2 Text publishing tools

Some examples of text publishing tools are:

- WordPress blog: open source software to create and manage blogs and websites. It uses standard templates and allows plugins
- Wikipedia: free encyclopaedia that can be edited by everybody and thus a non-academic source of information
- Organisational wiki's: easily edible webpages for internal or external secured collaboration and knowledge sharing
- Slideshare: community for sharing presentations, documents and pdf files
- Quora: question and answer website but also to create and follow blogs.

This social media type covers all of the many blogs around. A blog is an online diary/ website about a specific subject in which content is shared in chronological order. For a blog it's important that you write about something you are passionate about. The frequency you post updates is also an important factor and your focus as well, this means for example that you analyse activity etc.

2.2.3 Microblogging tools

Microblogging tools are characterised by short text messages to avoid an information overload. It differs from social communities by being publicly available (not limited to the members) and from text publishing tools by its limitation on the number of characters per post. Examples are:

- Twitter: twitter refers to the chirps of birds, tweets are limited to 140 character. Some of the typical 'vocabulary' are: @username to indicate a user, 'tweet' to indicate another post, 'tweep' to indicate another user, RT = retweet a response on another post, #topic indicates topics or keywords,..
- Tumblr: is a quick way to blog using multimedia (short amounts of text, photo, audio, video,..)

2.2.4 Photo publishing tools

The purpose is to share photos and images rather than text. Examples are:

- Pinterest: Here you can share your interests by the means of pictures which you 'pin' to your board, people have the ability to follow your boards. It also allow social bookmarking (= a centralised online service which enables users to add, annotate, edit and share bookmarks (= references) which allows tagging with keywords, the advantage is you can easily navigate through the information to find exactly what you are looking for, it must be noted that this does not only occur in this type of social media but also in the others.)
- Instagram: Pinterest is more related to sharing pictures about topics, Instagram allows its users to take photos or videos apply a filter and share these with other people.
- Flickr: can be used to manage and share photos, it's also often used by bloggers to make available photos to people who matter to them.

2.2.5 Audio publishing tools

This type of social media is used to publish and share audio fragments as they are easier to understand than text, they are frequently used in social media. Examples are:

- Spotify: a streaming service which includes a purchase service. You can either use it for free but with ads and for a limited period of time or you can pay without these restrictions.
- iTunes: a media player and library application for audio and video files.

2.2.6 Video publishing tools

Are used to share videos, their main advantage is that it gives you information about body language.

- YouTube: enables users to view and share videos to inform and inspire other people and serves as a distribution platform
- Vimeo: watch, upload, share videos
- Vine: looping videos limited to 6 seconds, designed for microblogging.

2.2.7 Social gaming tools

Social gaming tools aim at online gaming, organisations can participate in existing online games for building brand recognition or they can build a game for the corporate website to promote products or services. This is related to 'gamification' in which real-life situations are turned into competition, it applies game thinking techniques and skills in a real life situation. People are stimulated to do more of something or to do it better to improve and solve problems, to further stimulate them their achievements are quantified so they can have recognition.

- LinkedIn: shows a progress bar to stimulate its users to complete their profile and thus reveal more personal information. It also shows statistics about how many people view your profile etc..
- Starbucks: uses foursquare to improve customer loyalty by electing a major of every Starbucks shop looking at the points that are gathered by checking in in a store.

2.2.8 Really simple syndication (RSS)

RSS is a technology to distribute web content to subscribers, it's a one click solution for website readers to subscribe to content and receive updates the moment it is published. It differs from electronic newsletters which come in regularly, RSS sends you a 'feed' every time an update took place considering your subscription. It also differs from alerts such as google alerts which send you an email every time something new is published about the topic you pointed out as interesting.

RSS can be used for professional as for private purposes: an organisation could announce a press conference by means of RSS, or you could stay up-to-date about the newest hitlist by subscribing on a RSS on for example the apple website for the itunes hitlist.

RSS feeds will normally be receives in normal text formats however the feeds that are sent are lines of code

RSS can be used for different purposes: to read industry specific news, to monitor basic online issues, monitor and send basic online issues, for crisis communication.

RSS is along with microblogging one of the fastest ways for crisis communication. For instance a small topical blog may sleep until a crisis hits and suddenly get filled with Q&A's and FAQ's. By monitoring relevant blogs an organisation may become rapidly aware about things that are going on and start releasing updates via RSS, its advantage is that it can be launched within minutes.

2.2.9 Other social media types

2.2.9.1 Live casting tools

Makes it possible to broadcast your own videos in real time and usually for free.

2.2.9.2 Virtual word tools

Are meant to meet, talk, exchange ideas and watch presentations in a virtual environment for instance hold meeting or organise press conferences in a virtual building.

2.2.9.3 Mobile social media tools

Apps for social media on devices, for example foursquare, which was already mentioned. It's an app on which people can announce their location by checking-in, this may appear on other social media such as Facebook or Twitter. To stimulate people of doing this, Foursquare grants rewards such as badges and 'mayor' of a certain place if you check in regularly.

2.2.9.4 Productivity tools

Are meant to enhance productivity by supporting social event management or meeting (Doodle) take online surveys with a large audience (SurveyMonkey), peer to peer download, alerts, clouds,...

2.2.9.5 Aggregators

These are websites to gather information from other websites, it gives its users a personalized overview of new content that is relevant to him/her based on social media accounts, it may also include incoming mails, a personal agenda, notes to oneself, news items, weather,.. It also helps bloggers to read hundreds of blogs per day by letting the latest blog posts of their favourite blogs come to them.

2.3 Social media purposes

Organisations should not use all of the above mentioned social media tools but should pick some of them taking in account the profile of their users. So the social media strategy should adapt to the overall strategy: for example there isn't much sense in being active on Twitter if your target group isn't on Twitter. An organisation should know their customers (profiles) and provide them with more personalized communication that is relevant.

When you go to the homepage of an organisation you see a lot of social media initiatives that can be classified in one or another social media type and tool. For example a button you can click that contains a link to Facebook, Twitter, LinkedIn,.. However not all initiatives are related to social media such as typical Q&A pages or the registration to a regular newsletter which differs from RSS.

Social media types and tools should be chosen accordingly the social media strategy and the latter should serve the organisation's mission and the business objectives. The business model is the base.

The last part deals with the shared characteristics among social media types and tools, it concerns their general purpose. There can be distinguished four general reasons:

- 1) Social media use for communication: organisations could use social media to convince and sell. Organisations should think about what they communicate and how they measure effectiveness.
- 2) Social media use for collaboration: is also meant to convince and sell. It has the same purpose as the communication however it focusses on the sharing of experiences between customers, for example by gathering recipes customers made with their products in order to motivate other customers to make the same recipe and thus buy the same products.
- 3) Social media use for education: to learn about an organisation's products
- 4) Social media use for entertainment: organisations could try to be interesting and compelling on social media for instance they can try to be funny in order to gain attention.

Another way to focus on social media purposes is by looking at their degree of functionalities, there can be distinguished 7 functionalities: (1) presence (2) relationships (3) identity (4) sharing (5) reputation (6) conversations (7) groups. Each social media tool can be situated on one or more functionality, it is worthwhile to consider the implications of a certain functionality. For instance: Facebook focusses on relationships but also sharing content and revealing your personal identity, this may imply privacy concerns.

2.4 Takeaways

In this section there will be information about future social media trends regarding picture and video, in-house-community management, big data & the business model of social media tools.

The first trend is that pictures and videos have become more important to transmit a message than text, when it comes to text, publishing happens more in the sense of storytelling. Furthermore we have seen that the amount of text is decreasing (such as in Tweets). Photo and video publishing will gain importance in the coming decade and will have an impact on online advertising.

The second trend copes with community management and explains the increasing amount of organisations that try to manage their social media initiatives in-house instead of outsourcing them. In a lot of cases social media is used in addition to a physical event which predict the need for more collaboration with inline influencers.

The third trend is for organisations to use big data which allows more direct marketing with personalized offers.

The fourth trend will be that social media is going to try and make more money of its users, a lot of services are free to use but you'd have to accept the terms of service in which is mentioned that they can sell your private information.

Chapter 3: Social media strategy and return on investment

This chapter focusses on the fact that social media should support the social media strategy which in turn supports the organisation's strategy, it shows how these can be derived from the organisation's objectives and how key performance indicators (KPIs) and tactics can be formulated in a smart way. While executing social media strategy an organisations should constantly monitor its initiatives and evaluate whether they pay off (this is not by reaching a lot of likes or followers but should be measured in terms of ROI).

3.1 Introduction to a social media strategy

Social media are a first and essential way to look at the bigger picture of social media use, it should however only be used if it can contribute to one or more business objectives, this can be internal or external. For example to:

- acquire new customers
- increase customer satisfaction and loyalty
- increase brand engagement
- ..

These objectives are not necessarily linked to higher sales or profit. Social media does however not give an answer to all business problems, when customers are not present on social media, an organisation should not target them by means of Facebook, Twitter, .. Not all organisations use social media and if they do, they should keep specific business objectives in mind which can be derived from the organisational strategy and thus the vision, mission and values of an organisation.

In the framework of Kaplan & Norton business objectives and corresponding initiatives are classified in 4 categories

- 1) Financial objectives related to the shareholders
- 2) Customer objectives
- 3) Objectives related to the business process
- 4) Objectives for learning and growth related to the capabilities of people, systems and organisational procedures.

3.2 Determining a social media strategy

Before writing a social media strategy there should be an internal and external audit to explore the current situation (using surveys, in-depth interviews,.. for example on the way co-workers communicate with each other). This should point out if the organisational culture should change while adopting social media tools or launching projects. It may take a longer time to introduce a project if the staff currently doesn't want to share knowledge or doesn't know how to use social media tools. This can be measured using a social media awareness index.

By means of a tool scoreboard you could also encourage people within the organisation to rank different tools that might be valuable in the organisation. The results of this internal and external audit could be used to input a SWOT analysis which helps to see the current strengths, weaknesses and its future opportunities and threats. Using this SWOT analysis it becomes easier to derive a proper social media strategy that takes into account the specific characteristics of the organisation.



The figure shows that a social media strategy should be directly linked to the organisational strategy. It visualises a so-called social media strategic plan. It emphasises that each mission may have multiple business goals and each goal may have multiple social

media strategies; similarly, each social media strategy may have multiple social media tactics. Each goal and strategy are measured by corresponding key performance indicators (KPIs) while metrics are defined per tactic. In general an organisation can consider 3 to 5 strategic realisations per organisational goal.



This figure illustrates an extract of a social media strategic plan. Assume the mission is to provide an exceptional value to its customers. This might be realised by a business goal regarding social responsibility, which indicates the organisation is not only interested in profit but also society in general. The corresponding KPI is for example the amount of customers who recognize this image. This social responsibility can be supported by concrete social media initiatives. For example supporting a charity via Facebook. This may involve different tactics for instance the organisation could create a poster and donate €1 per share and add an amount when a certain amount of shares is gathered.

The figure indicates a clear distinction between business and social actions, the KPIs are measuring the business action and the metrics are there to monitor social media tactics related to social actions.



Alternatively a social media strategic plan can be vertically arranged. In this figure the evaluation efforts (left) and the investment efforts (right) are separated. Also a feedback loop is added in case the actual results do not satisfy the defined KPIs.

Also should be noted that the KPIs and tactics in the previous figure have been smartly defined (smart element are underlined). KPIs and tactics should be formulated as smart as possible. So they can be integrated in an action- plan and clearly evaluated afterwards.

SMART in this case is an acronym.

Acronym	Meaning
S pecific	Simple
M easurable	Quantifiable
A ttainable	Realistic
R elevant	Linked to organisational performance
T imely	To be realised within a specific timeframe, defined in advance
Evaluate	Ethical, ecological, excitable, enjoyable, engaging
Re-evaluate	Rewarded, reassess

Until now its shown that social media initiatives should be in line with the organisation’s mission statement, which is frequently available online so internet users may check if the organisation is acting in accordance with its mission. Nonetheless social media is relatively new so some organisations may have a more advanced social media use, in general every organisation goes through these 5 stadia ranging from lower to higher management support, budgets, resource,..

- 1) An ad hock or experimental social media use without management support, budget,..
- 2) An ‘engaged’ use with managers aware of the power of social media with small pilots launched by volunteers
- 3) Structured use with larger social media budget and formal projects.
- 4) A managed use with social media being a part of daily management where a cross-functional taskforce is set up and social media efforts are conducted by trained professionals
- 5) An optimised use of social media with social media efforts linked to the organisation’s goals and mission statements, beside a taskforce a centre of excellence is created with experts in social media

3.3 Monitoring and evaluating a social media strategy

A social media strategy should be constantly evaluated and redirected if necessary, thus this section deals with the performance of social media initiatives and the metrics to monitor effectiveness or returned value? The SMART rules for KPIs and social media tactics facilitates this evaluation phase there is a disagreement on what to measure: some only evaluate the social actions based on web analytics (for example: number of ‘likes’ or ‘shares’) while others also evaluate the corresponding business actions and outcomes. The best way is actually for these 2 to complement each other.

- Examples for performance metrics based on web analytics are: activity (how many clicks), velocity (how many messages spread), attention (how much time on one webpage),

participation (how many members), tone (positive or negative messages), qualitative analytics (what did it say), impact (what did it do?)

- Examples for performance metrics based on business outcomes are: frequency (how much did the number of sales transactions increase per month), reach (how many new customers), yield (how much did the average transaction value increase)

3.3.1 Monitoring web analytics and social media analytics

Web analytics and social media analytics focus on social actions but there are some problems for organisations to find appropriate social media metrics such as:

- The traditional metrics insufficiently cover online interactivity
- Different authors propose different metrics
- The entire impact of social media initiatives are difficult to grasp
- ...

Given these problems should clearly define the KPIs and tactics in their social media strategies in order to find appropriate metrics. There exist many monitoring tools that automatically generate statistics (some even for free) but they still need to be customized and interpreted. Therefore there exists a 10-90 rule: for every €10 or 10% of time spent on web analytics and social media monitoring tools, €90 or 90% of time is required for an IT analyst to interpret the statistics and provide an insight in the performance of social media.

3.3.2 Monitoring business outcomes and return on investment (ROI)

Monitoring tools such as google analytics or alerts focus mainly on social actions, an organisation should not forget to pay attention to the related business outcomes as well. To measure these, different approaches are possible: financial performance (sales growth,..), operational performance (market share,..), effectiveness performance (related to stakeholders,..).

To some degree, the general performance metrics also apply to social media investments such as return on investment which is the ultimate business performance metric.

$$ROI = \frac{(\text{revenue or gain from investment} - \text{costs of investment})}{\text{costs of investment}}$$

In this formula revenue typically refers to the conversions (users who respond to an organisation's call-to-action and convert these visits into desired actions) while the costs depend on the type of investment.

ROI should be calculated before the investment using the expected revenue and costs and when the initiative is finalized it should be re-calculated based on the actual revenue and costs.

Organisations can however have difficulties with concretising the revenue and costs in the ROI formula. Revenue can be quantitative or qualitative, with the latter difficult to measure (customers' satisfaction). Also in a lot of cases surveys are used which face the typical problems such as statistical significance,..

Some organisations also use different formulas by adding an element in the numerator such as: +the number of new customers, +employee retention, + customer engagement or idea generation.

3.4 takeaways

Organisations can apply the different general principles of strategic management to social media in order to take advantage and create business value. If an organisation wishes to use social media they should verify whether it can contribute to the business objectives and derive particular social media strategies. To evaluate the chosen initiatives an organisation should pay more attention to business actions and ROI than to social actions.

Chapter 4: Online advertising and viral campaigns

This chapter focuses on two of the possible social media initiatives to execute a social media strategy, namely online advertising and viral marketing campaign, it clarifies the elements which are typical to an online context.

4.1 Online advertising

4.1.1 Introduction to online advertising

Many online advertisements appear on websites, social media tools or search engine results pages. The space for paid ads is usually indicated with a special icon or a title like ‘ads’ or ‘sponsored link’ to inform the user it differs from regular web content.

Online ads can take many sizes, can have text, a photo, video or music. Some ads allow the user to browse the site while others oblige the user to look at their content (ads on Spotify or YouTube) or even to take action (Click on Go to the website).

However ads are not only present on websites but also on search engines, this is search engine advertising (SEA) which is a part of search engine marketing (SEM). Ads may or may not be linked with a web page’s content. Mostly the ads are linked to a certain key word. If a user searches for this particular key word the relevant ads will appear, this is called ‘personalised’ ‘contextual’ or ‘targeted’ ads. These are positive for internet users (getting more relevant information) and the organisation (sales). There are some privacy drawbacks linked to this kind of ads because personal information is needed for some types of targeted ads. This can be done by browser cookies, collecting personal information on different social media tools through social engineering or by profiling in social networks.

Furthermore these ads can also be sponsored in a ‘content network’. This means webmasters collaborate and simultaneously offer their ad space to organisations, which allows these organisations to appear on multiple websites. This differs from search ads because the users do not necessarily look for information by means of inserting a key word in a search query. A content network is usually coordinated by an intermediate actor or so-called ‘ad server vendor’.

4.1.2 Defining online advertising

Online advertising	Traditional advertising
Marketing on internet and social media	Marketing in newspapers, magazines, tv, etc.
<ul style="list-style-type: none"> • Faster dissemination of information • Niche audience: customised by geography, demography, hobby, etc. • Interaction possible (e.g. input fields) <p>=> Higher efficiency expected</p>	<ul style="list-style-type: none"> • Better privacy protection • TV remains a big competitor

- **Expectation: budget for online ads ↗ vs. traditional adv ↘**

The table summarises the important differences between online and traditional advertising in the mass media. It shows social media and the internet are characterised by a faster dissemination of information and allow a more direct interaction with the customers. Online ads will display or contain a link to the corporate website and thus all information is just one click away. Also thanks to the personal information, more personalised ads are possible.

Different forms of customisation or targeting exist for online advertising, such as:

- Targeting related to the webpage that shows ads (content-related,..)
- Targeting related to personal social media profiles or data from the computer of the internet user who visits a webpage that shows ads (socio-demographic,..)

Based on the previous insights it is to be expected that an organisation's budget for traditional ads is likely to decrease. Nonetheless television may remain a big competitor for social media in the future. Following categories for online advertising can be distinguished:

- Text ads: textual ads are often based on the user's search keywords.
- Display ads or banner ads: these combine text with graphical images.
- Classified ads: small text ads presented by product category.
- Rich media ads: ads that look like television commercials.
- Referrals or lead generation ads: ads that appear in an advertising network which serves as a lead generation device.
- Sponsorship ads: if an organisation sponsors a third party website it usually can show its ads on this website as well.
- E-mail ads: ads that appear in direct electronic messages.

The main content-related difference between online ads is whether text is accompanied by graphical elements. In the first case the ads merely contain text while the second is more graphical to attract the attention of internet users. Those graphical elements can be static, with input fields or with rich media. In general text ads tend to be interpreted as less annoying than the graphical ads, this is because the latter typically attracts more attention and disturbs the regular browsing activities.

Online ads have some typical similar content items such as:

- A short and attractive title
- A short description and/or images or other animation
- A direct link to the corporate website (this is crucial for the ad to support a business action, it should also be well considered, for example the link could go straight to the web shop to prevent the user to have to look for the relevant information himself, which enlarges the risk of the user bouncing).

4.1.3 Pricing models for online advertising

Advertising should serve business objectives, the amount of money an organisation is willing to spend on online ads depends on their total budget and the relevance of the corresponding business objective. The prices of online ads are instable and the majority depends on a bidding process, the price per add may be influenced by:

- Demand for ad space: if a lot of organisations want to show an ad on the same moment, the price will be higher.
- Reach of ad space: the more visitors, users a page has, the higher the price for the ad will be.
- Keywords: the price for an ad can increase if many ads are linked to the same keywords.
- Location on web page: it is shown how people look at web pages and that the upper left corner is the most important, this part will be the most expensive to place an ad.

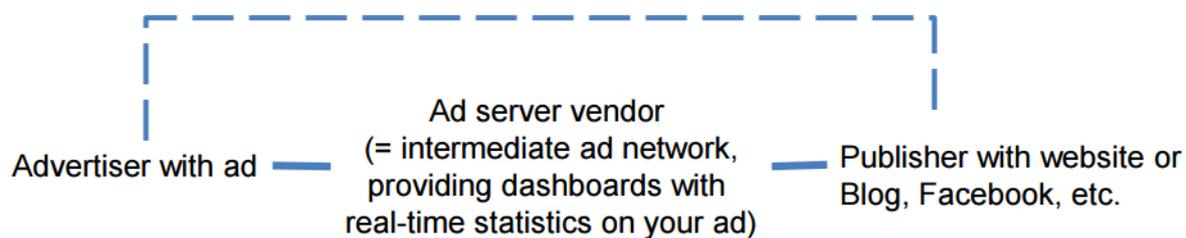
Given the high costs linked to online advertising an organisation should beforehand decide on the maximum amount of money to be spend and on the pricing model (e.g. max 40 cents per click). The most common pricing models are:

- Pay-per-view: an advertiser pays for each unique user view of the ad.
- Pay-per-click: an advertiser pays every time a user clicks the ad and is redirected.
- Pay-per-action: an advertiser pays every time a user clicks the ad and completes a transaction or business action.

Other options are:

- Fixed cost: the advertiser pays one fixed amount of money, independent of performances.
- Pay-per-visitor: the advertiser pays per website visitor, independent of the ad.

Nonetheless bidding procedures vary and depend on diverse factors. Sometimes a higher position does not only depend on the bid but also on the content in the ad and the content on the landing page.



The figure shows the parties involved in online advertising, the bidding process can be managed in a direct way (solid line) or an indirect way (dashed line). As the price of ads depends on this bidding process one can also talk about a 'bidding war'. An organisation's bid is the budget that it is willing to spend. As shown in the figure, bidding wars can be directly organised by the publisher who sells ad space. However in most cases there is an intermediate ad vendor who coordinates the bidding process, the advantage of this is that they frequently provide access to dashboards with real-time statistics related to the ad.

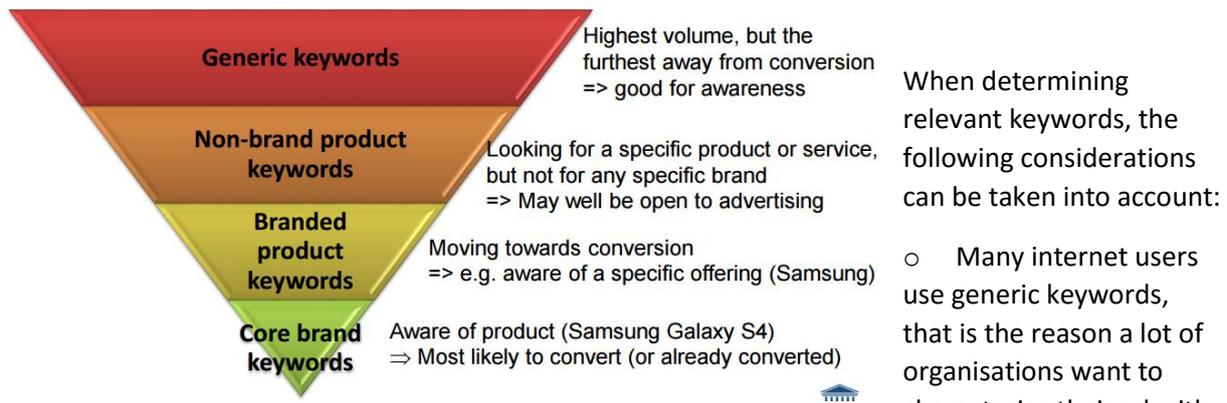
During the bidding process organisations can negotiate about the pricing models. The price of the ad often goes hand in hand with the expected clicks. Higher expected clicks bring higher costs but also a larger chance of the desired business action. It may for some organisations be smarter to buy space just beneath the top spot. There can be distinguished two screening stages: the pre-screening (ad's position) and the post-screening (the content).

A final remark considering the price of online advertising deals with click fraud, which is especially important for a pay-per-click pricing model, this refers to the illegal act of clicking on ads without any interest in the corporate content.

4.1.4 Starting online advertising

The steps to launch online advertisements are similar to offline marketing and will not be discussed, this sections draws the attention to those elements specific to online advertising. The five steps are:

- Determine your target audience and its needs: this can be about demographic and geographic questions but also lifestyle and future needs
- Determine an online advertising strategy: the needs of the target audience should be taken into account
- Fill out the online parameters for the ad: the publisher or ad server vendor will probably ask for parameters such as: campaign name, location, language, budget,..
- Determine relevant keywords: these are relevant to characterise the ad and allow targeting.



such a generic keyword but they are expensive. Thus organisations should consider if they can avoid using these generic key words.

- o People usually search with two words or a sentence so it's better to choose 'book airline ticket' rather than 'travel' or 'airport'.
- o There's a distinction between primary keywords and secondary keywords which should support the primary keyword.
- o Avoid keywords with multiple meanings: in order to avoid confusion and only attract more relevant people
- o Avoid using brand names of other organisations to act in an ethical way.
- Finalise the text of the ad, this is similar to the offline advertising, using an attractive title, a call to action, informal writing to identify with the user,.. Often dynamic keywords are used, this are keywords that are literally replaced by the search keyword of the internet user.

- {keyword:} no capitalisation, all word(s) are in lower case
- {Keyword:} the first word is capitalised
- {KeyWord:} every word is capitalised
- {KEYword:} every letter in the first word is capitalised
- {KEYWord:} every letter in the first word and the first letter of the second in capitalised
- {KEYWORD:} every letter is capitalised

If someone uses a search engine to look for information about for example candy, the ad will adapt its content and refer to the exact words of the user in order to make the ad more personalised and thus more relevant.

4.1.5 Monitoring online advertising

Previous section already indicated the importance of monitoring social media initiatives, an organisation launches these initiatives to create value in terms of business actions, these should be monitored in order to determine whether they pay-off. Different metrics can be used to evaluate the performance of an online ad:

- Number of impressions: how many times is the ad shown.
- Click-through rate = (#clicks)/(#impressions): this shows how many people clicked an ad to reach the corporate website.
- Bounce rate= (#visitors who immediately left the website after clicking on the ad)/(total visitors who reached the website after clicking the ad)

- Conversion rate: ($\#$ goal achievements after clicking an ad)/($\#$ clicks): this is a business metric that measures the relative number of visitors who convert casual views or website visits into desired actions.
- Return on investment: the ultimate business metric to evaluate the performance of an ad.

4.1.6 Legislation related to online advertising

Targeted/ personalised ads that align with the user's personal internet history are only possible if personal data are stored at some degree. The question remains which data are stored, how they are used, by whom, how they can be corrected, etc.. This section looks at the legal issues to protect consumers.

Every internet user reveals some degree of information, intentionally or unintentionally when visiting any other website (time zone, location, programs installed, browser information,..). In general internet users are protected by traditional privacy laws, which generally stipulate that personal data can only be processed with consent of the internet user. The EU has a special e-Privacy directive which for example contains the cookie law etc.

In this context cookies are data from websites which are stored in a user's browser and reused if the user revisits the website (Language settings, passwords,..). The EU defines cookies as follows: 'a small piece of data that a website asks your browser to store on your computer or mobile device. The cookie allows a website to 'remember' your actions and preferences over time. Most browsers support cookies, but users can set their browsers to decline them and can delete them at any time.' Essential and non-essential cookies are distinguished. It allows cookies essential for a good working of the website but for other, prior informed consent of the user is required. Cookies are often used to facilitate personalised ads and to find out which are most suitable.

Users can, besides accepting or declining cookies also protect their privacy by removing or blocking cookies in their browsers themselves. Cookies are a rather friendly way of serving the internet, others are more doubtful or even illegal:

- Web bugs: invisible objects on a website that check whether the user has viewed that page or e-mail, when, from which pc,.. These cannot be blocked and can be abused for sending more spam-mails.
- Click stream data: data on the use of a website (duration, ip address, previous and following page,..), legislation is unclear about this tracking technique.
- Malware: also called malicious software, spyware, adware or viruses, they pretend to perform a simple service in a pop-up but are designed as Trojan horses to dupe the user, they remain illegal.

4.1.7 Challenges for online advertising

There are numerous ads on the internet which creates a challenge for advertisers namely: ad blindness or ad avoidance. This means users tend to avoid ads independent of their quality. There can be distinguished 3 types:

- Affective avoidance: users who detest ads will only increase this negative feeling by seeing more ads. They do not pay attention to the content of ads
- Cognitive avoidance: users may intentionally ignore ads due to negative beliefs associated with ads, the difference with affective avoidance is that the feelings don't change but users will still not pay attention to the ads.
- Behavioural avoidance: when you know a certain page always shows ads on the top, you might automatically scroll down, this differs from avoidance due to a lack of attention.

There can also be distinguished 3 reasons to explain avoidance and ad blindness:

- Perceived goal impediment: ads may interrupt a goal-directed use of the internet
- Perceived ad clutter: because of the excessive number of ads is irritating people might get annoyed by an ambulance of ads, especially if many ads are displayed on a website.
- Prior negative experiences: because of a perceived lack of utility, for example if you once clicked on an ad and this didn't add any value.

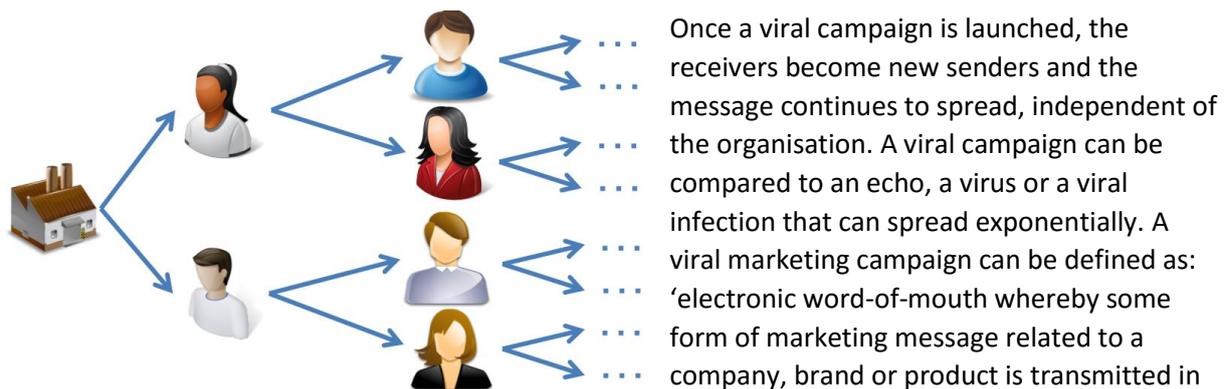
4.2 Viral campaigns

4.2.1 Introduction to viral campaigns

The creation of viral campaigns may be a possible solution to an abundance of advertisements and the problems of ad avoidance or blindness. Because it relies more on personal communication. Viral campaigns can be linked to the world-of-mouth advertising explained in chapter 1. (People tend to have more faith in what relatives or friends say than what an organisation itself has to say about its products.)

4.2.2 Defining viral campaigns

A viral campaign relies on unsolicited mouth-to-mouth communication through the internet. It is however create by an organisation itself to promote itself as employer, its products or its brand. It can be used to create awareness, trigger interest and generate sales.



an exponentially growing way often through the use of social media applications. A successful viral campaign is an example of the social ripple effect. It starts with the organisation on the left, people receive the message and can share it with their connections and the ripple effect is created. Thus the success depends on how many times the content is shared. An organisation should however be aware that it cannot control its corporate message once the campaign is launched. People may change the content when they share, this can be positive: make it more funny or negative (if pressure groups turn the content into criticism).

4.2.3 Success stories of viral campaigns

This sections elaborates some success stories of viral campaigns (this does not only depend on social metrics but also on the realisation of business objectives).

- Hotmail launch: one of the first successful campaigns was Hotmail who added a short message at the bottom of each mail 'PS get your private, free e-mail from Hotmail' it was successful with 12 million users within 18 months.
- Nike: viral campaigns are now frequently used especially by brand with younger customers who are familiar with the use of social media, such as Nike who displays YouTube videos of famous sportsman wearing Nike shoes.

- Blendtec: a company which sells blenders had the viral campaign under the name ‘will it blend?’ In which random household object were put in the blender to show of its power.
- More examples p83 textbook

4.2.4 Tips & tricks for viral campaigns

A viral campaign can only become successful if its voluntarily spread and shared exponentially. This can be reached by fulfilling following goals

- Goal 1: Create content that people are eager to share
- Goal 2: Focus on trendsetters who are more likely to influence others.

The first goal is related to the content of a corporate message, it is more likely to be shared if it applies some factors to engage people, for instance:

- The message teases emotions such as extremely funny or sad.
- The message gives away free products.
- The message gives advice that encourages ease of use.
- The message is well targeted and contains highly relevant information to people.

If these are absent other factors might still stimulate the customers:

- People already have a long-term relationship with the organisation
- It’s about innovative products that make people curious

The second goal points out that some people are more likely to share a corporate message than others, the organisation can thus start by targeting groups of people who are considered as credible sources and able to influence others in order to start the sharing process. These people typically (1) have a lot of connections in their network and (2) have such an impact on their network that other members are more likely to share the message too.

These trendsetters can be people like: salesman who are very convincing for others, mavens or evangelists who are recognised as experts and like to share information or connectors who have many people in their network.

Advantages	Disadvantages
<ul style="list-style-type: none"> • Low costs • Consumers voluntarily spread the message • Many consumers can be reached in a short period of time • Possible integration with other campaigns • Viral campaigns never stop • ROI can be automatically / digitally monitored <p>=> Higher efficiency expected</p>	<ul style="list-style-type: none"> • Low control over content and timing • Strongly depend on the goodwill of consumers • Possible miscommunication between cultures (funny?)

The table summarises some of the advantages and disadvantages that are linked to viral campaigns. The main disadvantages are that the organisation cannot control the content when the campaign is launched (as discussed before), the success depends on the goodwill (to share) of the consumers and the content can be misunderstood due to cultural differences.

4.3 Takeaways

To some degree the general marketing principles can be applied to the online context, in both cases it's the organisation who takes the initiative. The content should be attractive and relevant to reach the target audience and satisfy the related business objectives.

This chapter also discussed additional considerations specific for the internet. For online ads the target audience isn't necessarily the mass of the people but a more targeted approach is possible, in which specific legislation should be taken into account. An organisation should also reconsider how the initiatives are monitored and how conversion can be encouraged.

Moreover the bidding process of online advertising differs from traditional advertising and includes different pricing models. Regarding viral campaigns the main challenge is to create content that people are eager to share.

Chapter 5: Social customer relationship management

This chapter gives a broader perspective on social media use by discussing social customer relationship management (social CRM). This is the best example of a multidisciplinary approach as it involves almost all departments of an organisation. It intends to build a strong relationship with the internet users trying to turn them into loyal customers and particularly brand advocates who influence others to like the organisation.

The typical departments that are linked with customers are MarCom (i.e. pre-sales) who organise marketing initiatives, the sales department who actually sell the products and the department for customer service and support (i.e. after-sales) who answer questions and handle complaints or requests.

5.1 Introduction to social CRM

Social CRM consist out of 2 parts: social and CRM. Regarding the latter some examples deal with follow-up conversations by coupling information of the sales departments to the department of aftersales of customer service and support (example 1) and MarCom (example 2).

The traditional idea of CRM is combining all of the information about a specific customer in a single database in order to better serve customers in a more personalised way.

- CRM example 1: after buying a product or service in an online shop, the customer receives an e-mail with a satisfaction survey.
- CRM example 2: after buying a product, the customer receives an e-mail with sales promotions for other related products of the same organisation.

Additional triggers for social CRM are linked to online content:

- Social CRM trigger 1: a customer complaining about an organisation on a public social media tool
- Social CRM trigger 2: people publicly criticising an organisation's industry on social media.
- Social CRM trigger 3: an internet users who publicly post a forum questions related to products of an organisation
- Social CRM trigger 4: an independent blogger who posts a positive message about an organisation

These direct triggers for social CRM are not necessarily initiated by an organisation itself, as the examples show situations in which internet users post online content that can impact a business or a brand and thus are worthwhile to monitor. The two first triggers may have a negative impact while the others create opportunities.

Regarding the negative triggers an organisation could try and avoid crisis communication by listening and trying to better understand a customer's needs. For instance try to figure out whether an angry customer has tried to contact a help desk and whether they responded properly.

In sum it's important to identify triggers and properly respond to them to try make an advantage of them. Hence social CRM is rather user driven than organisation-driven.

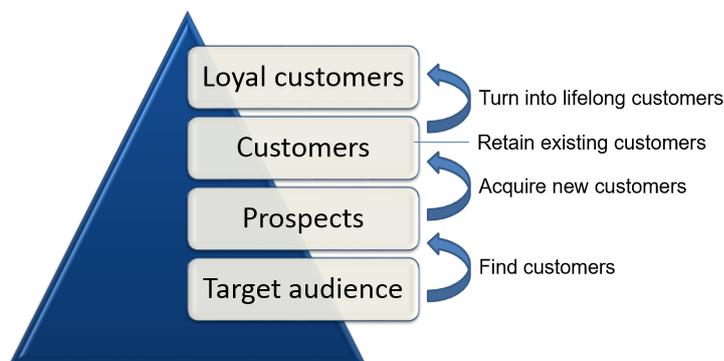
Social CRM is about putting individual customers first by converting (1) online content into (2) conversations, extending those into (3) collaborative experiences and then transforming these experiences into (4) meaningful relationships.

Social CRM tries to turn social media connections into real customers and even brand advocates. Hence possible synonyms could be: 'customer experience management', 'customer centric management', 'fan relationship management' or 'community relationship management'.

Social CRM focuses more on direct and personalised communication. Traditional CRM rather focusses on a single database that stores all customer information. Social CRM also reminds an organisation that social media should not just be used for marketing purposes but also focus on better customer experience by means of better or more innovative products and services, better business processes and better internal communication,...

5.2 Defining social CRM

5.2.1 Traditional CRM



Traditional CRM is all about the customer, it tries to create a 360° view on customers to generate value for both sides. The main goals are:

- 1) Finding and acquiring new customers
- 2) Retaining existing customers (which is easier than acquiring new customers).
- 3) Turning customers into loyal or lifelong customers.

The top of the pyramid refers to

emotional loyalty towards an organisation or a brand. Moreover traditional CRM is all about managing the organisation's relationships with customers, strong relationships are a requirement for good business it explains why organisations win or lose customers. These relationships should also be challenged by for example teaching customers about new opportunities.

Relationships can be created for different purposes and because of this organisations may sometimes misinterpret the reasons why customers interact with them. In a lot of cases this is because they are interested in sales offers that directly impact them rather than keeping up to date about the products and services of an organisation.

Customer relationships can be managed by aligning all the departments involved and create a single database that comprises all customer information, instead of different databases, this prevents inconsistent information. This database can be used for a lot of purposes:

- contact management: names, telephone numbers, addresses,..
- managing transactions and money: centrally storing information about orders, invoices,..
- managing potential customers: storing information about prospects,..

The original definition for CRM is: 'a philosophy and a business **strategy**, supported by a system and a **technology**, designed to improve human **interactions** in a business environment.'

CRM is often supported by different tools and technologies, its strategy is based on customer engagement and interaction, sales or only of secondary importance. The managing of customer relationships is more important than engaging them and providing them with a positive brand experience. The definition only implicitly refers to a mutually beneficial relationship.

The traditional view still focuses on a one way communication from an organisation to a customer which primarily involves collecting data in a single database to target individual customers through pre-sales, sales and aftersales.

5.2.2 Social CRM

The need for social CRM comes from the evolution of an information-asymmetry to an information-democracy which resulted in more empowered and well-informed customers who dislike one way communication. Customers have a lot more possibilities to talk to each other and connect with others regarding a product this caused an evolution from a 'connect-and-control' marketing to a 'connect-and-collaborate' marketing. Therefore social CRM will extend to AIDA (awareness, interest, desire, action) to turn customers into loyal customers, this is AIDAL (awareness, interest, desire, action, loyalty). Social CRM also better recognise the impact of influencers (recommendations, reviews,..).

The word social in social CRM literally refers to social media as communication tools and technologies, it thus is an extension of CRM which uses social media to capture customer information and engage with them with the same goals as traditional CRM:

- contact management: names, telephone numbers, addresses,..
- managing transactions and money: centrally storing information about orders, invoices,..
- managing potential customers: storing information about prospects,..

The ultimate goal is to foster customer relationships, better understand the customer's needs and create customer experience which will lead to repeated purchases. A possible drawback about this personalised communication is that some customers may feel less important than others. Not all committed consumers are of equal value.

A generally accepted definition for social CRM is:

"A philosophy and a business **strategy**, supported by a **technology** platform, business rules, workflow, processes and social characteristics, designed to engage the customer in a collaborative conversation in order to provide mutually beneficial value in a trusted and transparent business environment (..) the company's response to the customer's control of the conversation."

As indicated in bold it has similar constructs as the traditional CRM however the underlined parts are important refinements. Social CRM focuses more on positive customer experience and brand advocacy (people who influence others to buy a brand) instead of pushing information. Social CRM takes advantage of the social media opportunities to create personal interactions with the customers and prospects.

5.3 Types of social CRM

Social CRM promotes a multidisciplinary approach, the typically CRM departments (MarCom, sales, ..) should therefore act as a bridge between the market and the organisation, they should pass relevant information to the office departments. 3 types of social CRM can be distinguished:

- 1) Social marketing if MarCom is primarily involved:

This type mainly aims at social marketing insight, rapid marketing response and tracking online campaigns. It can combine social marketing with social sales by for example regularly mailing local offers to subscribers.

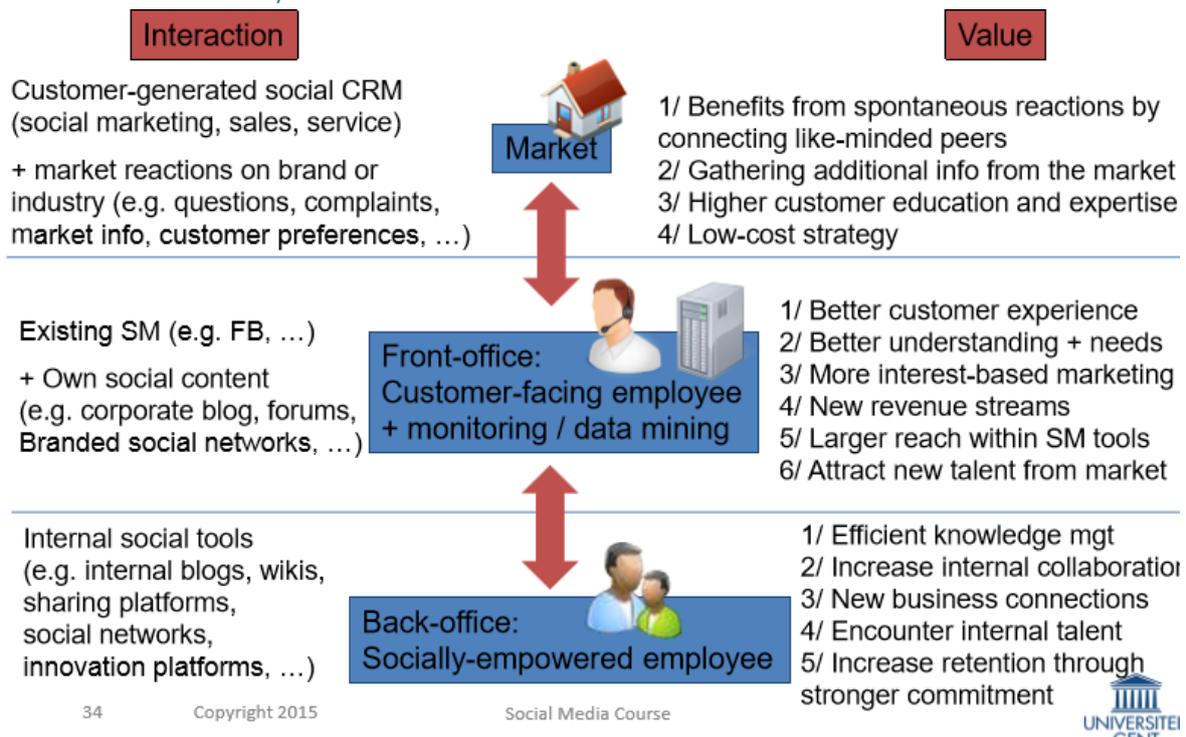
The website could work with quantity discount rather than direct sales offers. In this case the deal will only become available if a certain amount of people take part, which reduces the risk. This can be a social CRM for all parties involved. Website owners get a certain amount of money, customers a reduction and local partners can attract customers.

- 2) Social sales if the sales department is primarily involved:
This type focusses on rapid sales response and proactive lead generation to find more prospects. For instance online shops could combine social sales with social services by creating a helpdesk or support group on social media tools resulting in higher sales and extra support for the customers
- 3) Social service if the department for customer service and support is primarily involved
This aims at social support insight, rapid service response and stimulation brand advocates. For example they could create a focused social media tool to enhance customer engagement.

However social CRM can also involve other departments for instance:

- 4) Social innovation is the R&D department is primarily involved:
This type aims at innovative insights or crowdsourced R&D. For example a company could make it possible for its customers to submit ideas for new products or product features and to brainstorm about or rate the submitted.
- 5) Social collaboration and social customer experience:
External collaboration can be facilitated by typical CRM but is can also be internal (social media within and across departments) or B2B (social media use with partnering organisations) which can lead to an improved way of internal way of working leading to better customer experience.

5.4 Value creation by social CRM



The benefits of social CRM are centred around increasing customer insight and engagement and are fundamental to driving business performance. This section will look at value creation from 2 perspectives: based on interaction types and department-based.

The first one shows CRM will try to generate value for both the market as the organisation. The interaction generally happens between the market and the front office (= all employees who have

direct contact with the market and especially include the typical CRM departments) on one hand and the front and back office on the other.

The first type of interaction is this between the market and an organisations front office, this interaction can be launched by the organisation itself but the customers or prospects can also react online or post messages that impact the organisation or its industry. The customers can generate value through this reactions and additional available information, they can use social media to raise their voice or educate themselves.

An organisation could decide to make use of existing social media tools or create their own tools (such as a corporate blog), because the front office employees directly contribute to a customer’s experience they should try to detect the market’s needs. The organisation could create value by:

- better understanding of customer needs
- more information for personalised marketing
- reach more prospects (ripple effect)
- detect new opportunities in the market

The second interaction is between an organisation’s front- and back office, if necessary they can ask internal questions through internal social media tools. It can create value for the back office:

- more efficient knowledge management
- recognition of internal experts
- more committed employees who feel connected and thus are less likely to resign.

The second way to look at value creation is department-based, this is closely linked to the multidisciplinary approach and considers the whole value chain within an organisation, value can be created for the typical CRM departments as follows:



- MarCom: Social CRM can give insights to evaluate and refine an organisation’s marketing efforts and initiatives and to avoid crises. Also prospects can be identified on the moment they are actually considering a purchase.
- Sales: the sales department can profit from an integrated customer database to gain more information about customers and prospects this can be supplemented with information

gathered on the internet and social media? As result of social engineering the organisation becomes better at understanding the needs of particular customers.

- Customer service and support: by means of a social media based helpdesk an organisation can proactively build relationships and provide better service for its customers, it also allows an integrated view on the conversation history.
- Operations: social media may stimulate and improve internal collaboration. Further on social customer feedback can be used to adjust the way of working and thus improving the organisation's business rules, procedures and processes.
- The purchase department can use social media to strengthen its B2B relationships, by improving the communication or the demand forecasts.

5.5 Tips and tricks for social CRM

Social CRM strongly depends on the needs of an organisation's market. Therefore the following advice can help an organisation identify when and where internet users wish to get value.

- Multi-channelling: an organisation should offer both on- and offline channels to communicate so the customers and prospects can choose. The organisation should mention all of the contact details so the consumers are aware of their options, this does however not mean that an organisation should be present on all social media tools.
- Test: an organisation should test its online channels and social media tools (especially if they develop these themselves) to check whether they are user friendly and operate without problems.
- Monitor: an organisation should monitor relevant web content for example by using alerts.
- Listen: the gathered information should be analysed in an open and emphatic way to truly understand the needs and problems of the customers
- Respond: based on the monitored content, organisations should respond on the internet users in user-friendly, timely and relevant way
- Informal and personalised: on social media organisations can approach customers in a more informal and personalised way
- Content: organisations should encourage online discussions and give solutions which stay in the minds of consumers which then can go and talk about the organisation to others.

The advice above aims at creating meaningful conversations between an organisation and its market, this means not directly related to a sales offer but ultimately CRM intends to create value for the organisation and drive business value and have purpose to fulfil that goes beyond marketing or sales. The following methods can create meaningful conversations among others:

- Encourage internet users to ask questions and respond with advice to show an organisation's expertise (Q&A): an organisation could create an online forum or community for people to ask questions, this can also be helpful to detect what customers are concerned about.
- Ask questions to internet users to encourage lightweight interaction: a good example to stimulate interaction is story-telling, the organisation then posts a short story using pictures and videos about events which they sponsor. Also by posting a sentence with a blank that has to be filled in by the customers they can for example contribute to brand recognition, customer loyalty, product awareness and higher sales. In most cases the options are explicitly mentioned to avoid the sentence can be used in a competitor's favour.
- Help internet users when needed to turn them into brand advocates: this method tries to turn a negative customer experience into a positive one, for example as a customer publically complains about something the organisation could answer rapidly and find a solution.

- Encourage ideas for product innovation or service innovation: this method relates to social innovation by means of for example gamification

5.6 Monitoring social CRM

The monitoring of social CRM is broader than the monitoring of social media initiatives in general. For example an organisation could monitor the amount of connections a certain person has on social media in order to create a hierarchy between the different customers in which a customer with a lot of social media connections will be helped faster than others.

In general a lot of reasons exist for an organisation to monitor social media actions in broad sense:

- to measure the impact of online ads and viral marketing
- to understand what people say about the organisation
- to identify needs and questions
- to interact one-on-one with customers
- ...

In sum most reasons aim at understanding and responding to customers in a more personalised way. It may also be worthwhile to monitor competitors to take advantage of general trends. Moreover social media monitoring makes it possible to respond to a crisis in a very early stage. Social media monitoring integrates different types of metrics:

- Web analytics
- Social media analytics
- business performance analytics
- ...

Social CRM can also help an organisation to gain insight into which social media types and tools work best to generate positive word of mouth to reach brand advocacy and the desired business actions and turn this into customer loyalty and above all ROI. Social CRM can also be used as input for social network analytics or big data analytics. Depending on what the organisation wants to measure, different analytics can be used:

- user involvement: how many people visited a page, which pages did they see
- user interaction: number and frequency of blog post
- user intimacy: opinions of a brand
- user influence: number of messages shared

Afterwards the technique of correlation mapping can be used to link social media actions to business actions (e.g. which can be visualised in a scatter plot) Example: when the iPhone 4 was launched it had problems with the antenna, this caused a lot of negative comments on social media, the organisation picked this up and held a press conference to explain the problem and offer a solution.

5.6.1 Social media-based helpdesks, contact centres or support groups

Helpdesks play a central role in social CRM, it usually is a part of a department for customer service and support that converts customer inquiries (positive or negative) from different channels into support tickets for reasons of track and trace. Nonetheless a helpdesk can also support MarCom, Sales,.. A distinction can be made between inbound calls (initiated by the customer) and outbound calls (initiated by the organisation). It can take a lot of time to handle all the inquiries, an organisation may lower its costs by investing in efficiency and effectiveness of a helpdesk which can be facilitated by IT tools. For example a ticketing system and a corresponding reporting system: every incoming call a digital ticket will be created so it's easy to handle all calls without forgetting about one, they can also be separated in different groups regarding date or their subject. The reporting system can be used to create management reports for example to monitor how many calls a helpdesk receives or how long a call lasts.

A helpdesk could also give more detailed analysis in the following domains, among others:

- text mining: a content analysis may uncover when inquiries peak, the polarity of the content and a possible correlation with events. For instance when a crisis hits, an organisation should decide when and how to react.
- predictive mining: social CRM databases can be used for big data analytics in order to predict trends
- competitive monitoring: monitoring social media may uncover whether the users are talking more about the organisation or about its competitors.
- identification of influencers: this reveals the person who posts messages about the organisation and how many followers he has, this is important considering the ripple effect.
- lead generation: if an organisation knows which topics are discussed through which channels it can more easily start a conversation about a certain topic.

5.6.2 Social CRM tools

In general the monitoring tools for social CRM can be divided into four categories or groups:

- 1) Social listening, monitoring and analytic tools
- 2) Fan marketing and profile management tools
- 3) Social sales and marketing automation tools
- 4) Community and collaboration tools

The first three refer to social service, social marketing and social sales and the fourth to other social CRM types (such as social innovation, social collaboration,..). All of them however contribute to social customer insight, an organisation should however not only communicate on a one-to-one basis but should also monitor the online transactions between peers.

First, social CRM can focus on social listening, monitoring and analytics as these are the basis functions of social CRM. The social media monitoring can be done reactively (for example the ticketing system) or proactively (= proactive monitor content in order to create leads). The best way to do this is to monitor social media conversations that deal with organisation-relevant keywords. Once a question is found, the organisation can create a lead by means of a ticket in the ticketing system to track and manage the lead. The system will also record additional personal information about the users by means of social engineering.

Secondly, fan marketing and profile management tools intend to acquire and engage fans or social media connections before letting them act. Therefore they first build an active and engaged 'fan database' and try to engage them by discovering popular content or trends. Afterwards this fan database can be used to unlock social data and to convert social media connections into actual customers and brand advocates.

Thirdly, social sales and marketing automation tools combine CRM database management with campaign management to automatically send and manage deals.

Fourthly, community and collaboration tools constitute added value compared to the traditional view on CRM. This group focusses on innovative ideas in collaboration with social media connections to leverage a customer network. For example by submitting ideas which can be discussed and voted for. This process creates a collective wisdom from which all parties can benefit.

5.7 Takeaways

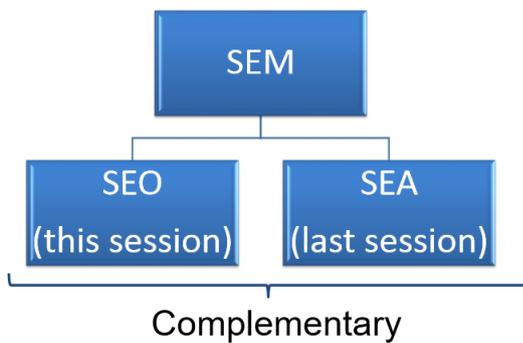
Social CRM gives organisations the opportunity to use social media in a broader perspective than marketing-related initiatives, nonetheless before social media can create business value an organisation should consider following issues:

- Integrate all social media initiatives in a CRM system and link them to broader strategies.
- Assess the degree to which employees are aware of and use social media tools and train them accordingly.
- Possibly change the internal way of working and encourage social behaviour within daily work. If necessary, increase the productivity of front office employees
- Properly reflect on how and which metrics are monitored and how to calculate ROI.
- Think about the privacy and security issues related to any IT system in general and to the social media use in particular.

Chapter 6: Search engine optimisation

This chapter deals with the way an organisation can get its page higher on the results page of search engines, this is relevant as internet users are more likely to visit search results that are shown at the top of a results page. The position of a website is determined using an indexation system which ranks web pages by means of so called 'spiders'. Organisations can use SEO to obtain a higher rank this could be through internal improvements (on-page) or external improvements (link-related).

6.1 Introduction to SEO (or SEM = SEO + SEA)



Search engines help people browse the internet and avoid an information overload. It allows people to find information on the internet. Important is that the higher a page appears on a search engine results page, the higher the probability people will click the link and visit the page. SEO deals with the actions to obtain a higher page ranking in natural or organic listings. SEO is a part of the broader SEM (search engine marketing) along with SEA (search engine advertising). They are complementary and can simultaneously

applied by organisations. This stimulation of the traffic to a website brings along a lot of advantages for organisations (reputation, brand recognition, ..)

SEM combines SEA and SEO to help an organisation acquire customers when they are looking for the organisation or its products. The organisation could apply SEO to gain a higher position in the organic listings or SEA to reach a higher visibility by means of online ads.

The old way	The new way
Customers must find the store front (= the door to the shop)	Website
Location is everything	Top 10 search results
Customers must find your contact details (e.g. Yellow Pages)	URL

As the table explains, customers must first find the door to an organisation before they can buy its products or services. SEM helps customers find this door.

This chapter will focus on SEO which has potential to pay off because of the following reasons:

- When people look for information they will visit those links that appear on top of their screen (which are considered to be trusted and more relevant).
- The vast majority of visits come from organic listings rather than online ads
- Some easy-to-use tips and tricks with a relatively low cost can be applied.

Nonetheless SEO is not always easy to realise because of the different requirements among the search engines, they also may change from time to time and are rather based on guesses.

6.2 Defining SEO

Search engine optimisation (SEO)	Search engine advertising (SEA)
Organic search results	Paid advertising
Universal search (webpages, images, video, news, books, social, ...)	Adwords bidding system
Continuous website improvements (e.g. code, structure, content, link to a site)	Media campaign
Long term impact	Short time impact
Long term strategy => patience	Quick setup => immediate results
Very high ROI	Pay-per-click

Search engine optimisation can be defined as: ‘The art and the science of getting a website to appear prominently in organic search engine results when a search submits a query relevant to that website.’

The main difference between SEO and SEA refers to natural or organic search results. A higher position may result in a higher ROI than the more expensive

pricing models for online ads. SEO is for example not involved in a bidding process. Nonetheless an organisation should continuously improve their website and make sure it remains up-to-date. Finally SEO has a long term impact without being limited to a marketing campaign. This also implies that organisations have to wait longer to see results of SEO efforts.

6.3 Search engine results page (SERP)

Different search engines exist: Google, Bing, Yahoo,.. The choice for a search engine depends on the targeted region. When looking at regular search engine results page (SERP) a clear distinction should be visible between online ads and the organic search results (often indicated in a different colour).

The image shows a Google search for 'smartphone'. The search bar is at the top. Below it, there are navigation tabs (Web, Images, Maps, News, More) and search tools. The search results are annotated with colored boxes and percentages:

- 10-25% (Orange box):** This region contains paid advertisements. The first ad is for 'Vergelijk.be smartphone' (www.vergelijk.be/gsm) with the headline 'Prijisvergelijking van smartphone online'. Other ads include 'Nokia Smartphone', 'Smartphones Samsung', and 'Smartphone'.
- 75% (Green box):** This region contains organic search results. The first result is 'Smartphone - Wikipedia, the free encyclopedia'.
- 90% (Green box):** This region contains organic search results. The first result is 'De beste smartphones op - PDashop.be: smartphone-specialist'.

At the bottom of the image, there is a footer with 'Copyright 2015' and 'Social Media Course'.

The paid ads are followed by natural or organic search results, the reason the ads appear on the top left corner is because research has shown this is the most viewed area and thus the best eye catcher for positioning paid ads.

SERP consists of the following elements:

- Search area: input field to insert one or more keywords and a button to launch the search.
- Online ads: the search area is directly followed by the sponsored ads these are normally linked to the keywords.
- Natural or organic search results: the organic listings follow the online ads, they may refer to the same websites but also to other related sources of information.

6.4 Indexation mechanism

Each search engine has its own business model for selling space for online ads as well as for their natural search queries. Webpages will receive rankings to construct a natural search process by following a specific indication mechanism. It's this mechanism that can be influenced by SEO by adapting webpages to these requirements.

However the requirements change over time, are not fully known and may also differ from search engine to search engine. Keeping this in mind it may be a good idea to focus on one or a few search engines and buy ads on other search engines.

The following steps illustrate how a search engine typically works. A search engine considers the internet as a web of links (like a spider's web). At regular times the so-called 'spiders' crawl over the web in search for new web pages or existing pages which have been modified. It will skim through the webpage and look at things such as: the page's text, image description, metadata, page titles and URL. It will also follow links and count incoming and outgoing links. Next the keywords linked to that webpage will be indexed and the frequency of words will be analysed.

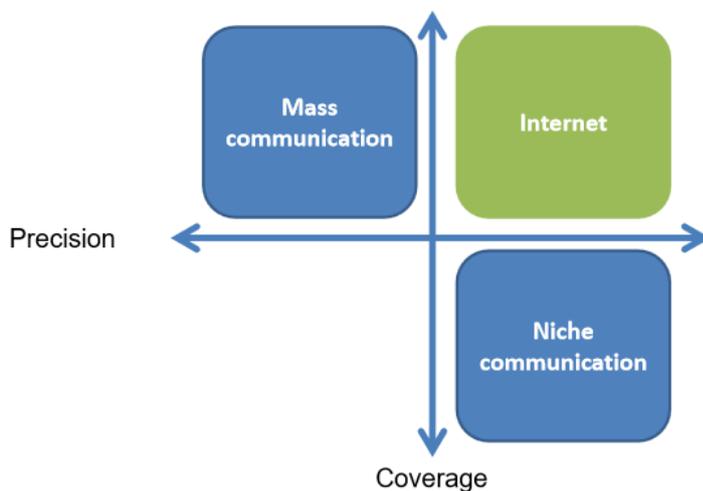
Based on all this information the webpage will receive a weight ranked in comparison with other pages. Thus a 'spider' refers to: 'a programme or automated script that (..) navigates from URL to URL by following links on the pages of the websites that they visit.' Using this method it searches the internet for the most popular webpages. Synonyms for a spider could be: robot, bot, crawler,..

When a search query is launched the search engine will only rely on the identified index to construct the organic list. In particular more than 200 ranking factors or parameters exist that determine the ranking. SEO takes these parameters in account to obtain a higher ranking.

Nonetheless a search engine can also 'punish' websites that are too optimised in terms of SEO. This is called 'over-optimisation penalty' and the SEO efforts will not result in a higher rank instead the page may get a worse placement on SERPs or even banned for a period of time.

SEO penalties can also be used to punish the use of 'black hat' SEO techniques (or search engine index spamming) if discovered. These techniques are considered as unethical attempts to obtain a higher ranking position or manipulations that violate the search engine requirements. They contrast to the ethical 'white hat' techniques.

Examples of 'black hat' techniques are: hidden content on webpages, duplication of content, stuffing pages with keywords irrelevant to the websites content, selling or buying incoming links, cloaking (=showing different content to search engines than to humans), bowling (=manipulating competitors search engine results by for example manipulating the quality of their incoming links).

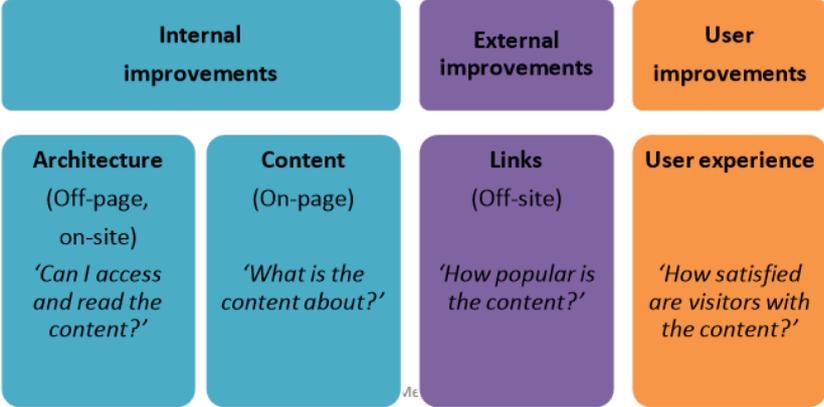


An advantage of search engines is their high coverage (they reach a lot of people, similar to mass communication) and a high precision (reaching people fast in a personalised way, similar to niche communication and direct marketing). A critique might involve the power of search engines, many people only browse the internet using search engines and therefore webpages might be obliged to follow what search engines think is important to

obtain a high ranking. It also gives search engines more power during the bidding process of SEA.

6.5 Tips and tricks for SEO

Higher ranking by focusing on:

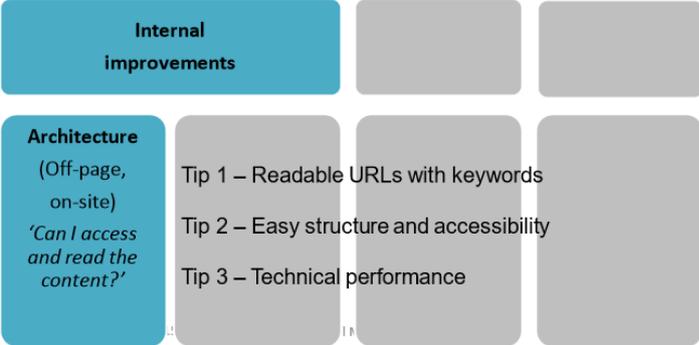


A website can reach a higher ranking in search engines using some tips & tricks, these are generally divided in 3 different categories:

- 1) Internal (off-page or on-site) improvements which can relate to the architecture of a website.
- 2) Internal (on-page) improvements can relate to the content of a website.
- 3) External (off-site) improvements can relate to external links to the website.

6.5.1 Off-page or on-site SEO improvements

Higher ranking by focusing on:



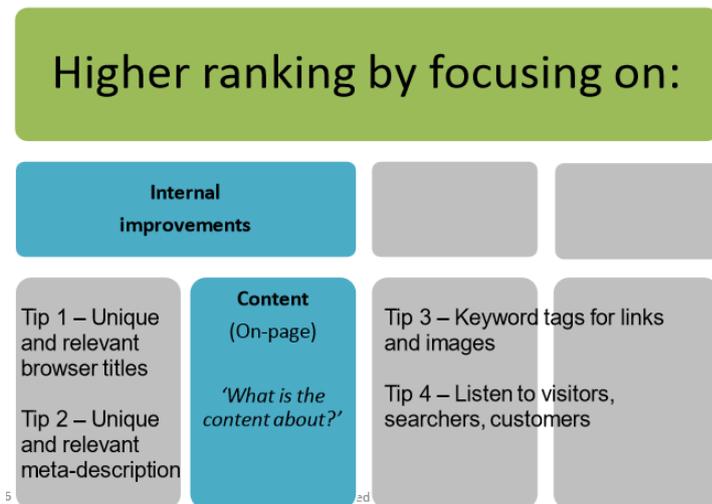
The first category deals with the architecture of the website and determines who can access and read the content.

- Tip 1 readable URLs with keywords: an URL should have a meaningful understanding for humans. It should also contain hyphens rather than underscores between the keywords to increase readability and be translated in different languages.
- Tip 2 Easy structure and accessibility: this relates to the spiders, who don't fill

out forms or wait for possible results when crawling the web. It is better to have a simple page construction instead of dropdowns and input fields, another option would be to list all options with links. Also you should use words with internal links. Spiders can click to other web pages of the same website. This technique is often used by Wikipedia and is one of the reasons it has such a good rating.

- Tip 3 technical performances: organisations should pay attention to the technical performance of their websites for 2 reasons: (1) When spiders visit websites the links must work in order to get a good rating. (2) People dislike slow websites, when a page doesn't load or takes too long to load people tend to switch to a competitor's website. Therefore organisations should: remove old links, pictures to speed up slow websites, regularly measure the speed and popularity of a website.

6.5.2 On-page SEO improvements



The second category relates to the content of the website or what a particular website is about.

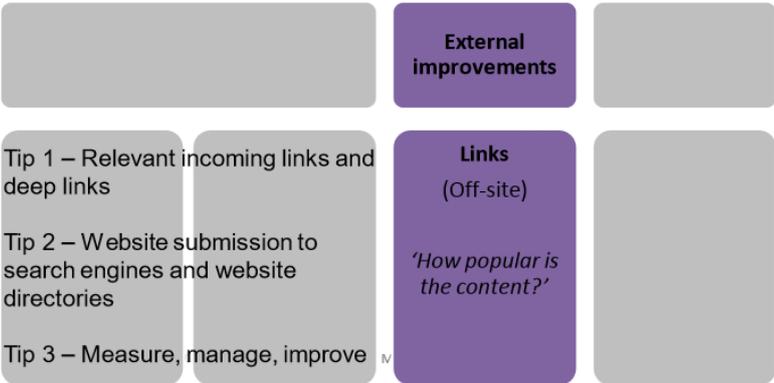
- Tip 1 Unique and relevant browser titles: this is the need for meaningful website names and keywords. You should use the keyword of internet users in the URL and then repeat it in the content of a website. It is also better to start with content-specific terms as head keywords (Samsung galaxy s6) and end with generic terms as tail keywords (smartphone). Titles of a website may not be too long, not

longer than 8 words because otherwise they might be too long to be fully shown on a SERP. Finally PDF files can also be given unique and relevant titles.

- Tip 2 Unique meta-description and keywords: also meta-data and keywords are important. Regarding this you should for example add a little description to be shown underneath the URL in the search results. SERP usually supplements the links with a short description, this differs from the first sentence of the actual website and aims to get traffic to a website and this has to be short, well-thought and attractive. It are these keywords, mentioned in the meta-description that determine for which search queries that page can appear. These keywords should be picked carefully and they should have (1) a high volume (appear in many search queries). (2) Low competition (used less by other websites). The problem is that other websites are also likely to use high-volume keywords resulting in more competition among websites. Therefore a balance should be found between popular keywords and less used ones. (3) High value (leading to a high number of conversions).
- Tip 3 Keyword tags for links and images: add alternative text or keywords for when a website visitor scrolls over links and images.
- Tip 4 Listen to visitors, searchers and customers: ask open questions to derive keywords and feedback. Open questions are important to gather more information about the visitors. Also an organisation could consider spelling mistakes, if customers tend to misspell the brand name of some features, these can be added to the keywords, the same goes for singular and plural mistakes. Finally it might be useful to reuse keywords in trends which can be discovered by using, for example Google Trends.

6.5.3 Off-site or external SEO improvements

Higher ranking by focusing on:



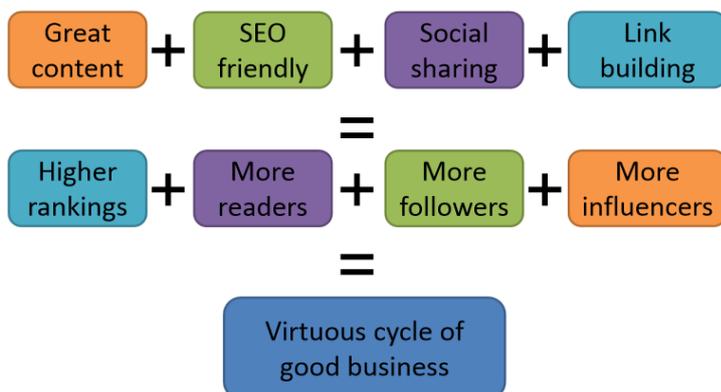
This third category determines how popular the content of a website is based on links from other, external websites.

- Tip 1 Relevant incoming links and deep links: this matters because what other trusted webpages tell about an organisation is considered to be more important than what the organisation tells about itself. An organisation could try to attract incoming links from other related websites. This can also be managed by including a link to an organisations corporate website on social media as Facebook or LinkedIn.

- Tip 2 Website submission to search engines and website directories: this means that an organisation should submit its web content to directories which can help them optimise it.
- Tip 3 Measure, manage and improve: this embodies the importance of monitoring tools, these can provide information such as the amount of visits, the duration of visits, the bouncing rate,.. It can be useful to uncover weaknesses of a website and improve it.

6.6 Takeaways

SEM is used to acquire customers online and bring more traffic to an organisation’s website. This can be reached by paying for ads SEA, this is primarily on the short term and SEO which can be seen as a long term investment. Since SEM aims at reaching business goals, the results and ROI of SEM efforts should be carefully monitored and measured.



SEO inherently starts with good and relevant online content, this means the success strongly depends on content that people are likely to share or to follow. Supplement this with the tips& tricks of SEO and you are likely to obtain a higher ranking in search engines, resulting in more readers, followers and influencers and thus in more traffic on the website. In sum it’s about creating a virtuous cycle.

Chapter 7: Opinion mining and sentiment analysis (Business intelligence 1)

Social media are seen as big data in the sense that they provide a massive amount of online reviews and ratings that can be collected and analysed in order to consider the impact these data may have on organisations. More positive reviews and higher rates for an organisation may lead to significant higher number of desired business actions.

7.1 Introduction to opinion mining and sentiment analysis

One way to illustrate the impact of social media on our daily lives is to look at online reviews and ratings. When social media were not present and people would like to go to a restaurant they would ask friends or family for their opinion or consult a published book such as the Michelin Guides. The first option gives less experienced advice than the second but it is easy and considered to be trusted. Nowadays people tend more to seeking information on the internet, think about sites such as TripAdvisor. Restaurants will be ranked based on the reviews and ratings posted by internet users.

In general studies have shown that organisations with better reviews and ratings have more desired business actions. There is an agreement about this correlation but not about the direction of this correlation, particularly there is disagreement on whether this is a direct relationship or whether some intermediate factors do count.

Nonetheless a lot of customers tend to go online searching for information before purchasing a product or a service and possibly choose for another product if negative information is found. People who look for online information, reviews and rating are also often prepared to pay significantly more for a 5 star product than for a 4 star product? This means online recommendations count and can possibly result in higher value per purchase for an organisation, on the other hand, negative recommendations can have negative consequences for on organisation.

This topic is closely linked to CRM and organisations should constantly monitor social media for reviews and ratings, if they find a negative recommendation they should react properly and take corrective action to avoid any reputational damage. While it may take advantage of positive ratings.

7.2 Defining opinion mining and sentiment analysis

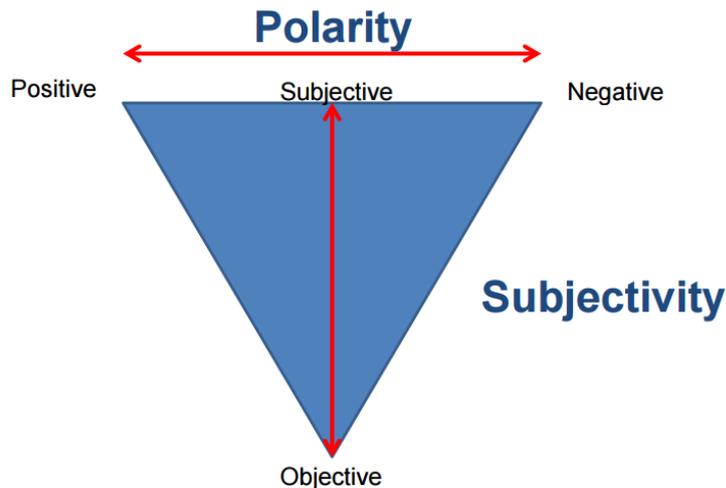
7.2.1 Definitions

It can be defined as 'processing a set of search results for a given item, generating a list of product attributes and aggregating opinions about each of them'.

Opinion mining and sentiment analysis are often used as synonyms, however opinion mining is the digging for information that is relevant for a business and refers to personal opinions (I think..) while sentiment analysis rather focused on feelings or sentiments. (I like..).

The techniques can be used for many applications in different domains, one example is market share prediction, if there is a constant negative buzz about a product this can have a negative impact on the market share of this product. At last it should be noted that opinion mining and sentiment analysis are not limited to social media and online text but can also be conducted on offline text.

7.2.2 Characteristics



Opinions and sentiments can have a different degree of polarity and subjectivity. Subjectivity ranges from objective (pure facts) to subjective (feelings or beliefs). The polarity indicates whether an opinion is positive, neutral or negative. These 2 factors are a continuum which means a lot of variations exist between the 2 extremes. Assessing the positive or negative meaning of facts depends on the interpretation of the reader.

7.3 Building a sentiment model

Subjectivity and polarity are indicated by words such as: good, nice, fantastic, bad, poor, awful and expressions as ‘the more the merrier, blood, sweat and tears,.. There are 3 general approaches to identify sentiment words:

- Manual: manual screening of the collected reviews to determine their polarity and subjectivity. It takes much effort and is thus often used in combination with other options.
- Dictionary-based: this starts with a manual screening to find sentiment words as ‘seeds’ these are put in an algorithm that searches online for synonyms or antonyms afterwards a manual check is required to clean up this list. This approach is less time consuming and more applicable in general topics rather than specific topics.
- Corpus-based: is specific for certain domain or category, the input are seeds (a small set of category-dependent words) supplemented by a list of references that link to domain-specific sources (representative text corpus). The output is a ranked list of words associated with that category (=sentiment lexicon). A manual screening is only required for the top ranked words.

Once these sentiment words are determined, the reviews can be analysed, it’s important to study reviews of many people in order to generalise the findings.

Posted by: Gregory Thurston

Posted on: 2013/06/28

(1) Six months ago, I bought a Garmin GPS, particularly the Nuvi 550, whereas my father opted for the TomTom GO (2635 Muve).

(2) During the first week, I was very pleased with my new gadget.

(3) The quality of the screen is very nice with beautiful colours.

(4) Now that I am using it more regularly, I experienced that the battery must be recharged quite often and weighs a lot.

(5) My father is very enthusiastic about his device, and has no battery problems.

7.3.1 Example of a feature-based sentiment analysis

In order to know how many people are positive/negative about a product or feature, each review can be analysed as follows.

To determine what the review is about, each sentence is separately analysed.

A feature based sentiment model can be built by looking at the five elements of an opinion (e, a, s, h, t) these letter refer to: entity, aspect (e+a what is the review about?), sentiment (what is the sentiment?), holder (to whom belongs the sentiment, the source) and time (when was the sentiment formulated).

For the example this is as follows:

- What is the review about (= target entity, e + target aspects or attributes, a) ?
Two types of navigations and different aspects of these: sentence 3 refers to the screen while 4 refers to the battery duration and weight. This can be used for categorisation which can be done explicitly (the aspect is literally mentioned, for example screen) or implicitly (the aspect can be derived, for example: fit in my pocket for size, battery must be charged a lot for battery life, also synonyms must be taken into account.)
- What is the sentiment (s) ?
Sentence 1 is neutral, sentence 2 expresses a sentiment in the past. The message related to the screen is positive (3) while this referring to the battery life and weight are negative (4). All sentences must be linked to interpret the review correctly.
- To whom belongs the sentiment (= source or sentiment holder, h) ?
To answer this the perspective of the reader should be taken into account, for example 'the house prices are declining. This is positive for buyers but negative for sellers.
- When was the sentiment formulated (= time stamp, t) ?
The date of the review should be included to monitor changes over time.

All this information can be summarised in the following table, it can be used to verify how many positive items were involved or to detect trends over time. For instance, when a new product is launched and has technical problems, the negative reviews will increase, this may alarm an organisation for timely intervention.

Target (t): Entity (e)	Target (t): Aspect (a)	Sentiment / polarity of target (s)	Opinion holder (h)	Date (t)
Garmin Nuvi 550	Screen	Positive	Gregory Thurston	2013/06/28
Garmin Nuvi 550	Battery - duration	Negative	Gregory Thurston	2013/06/28
Garmin Nuvi 550	Battery - weight	Negative	Gregory Thurston	2013/06/28
TomTom GO 2635 Muve	GENERAL	Positive	father of Gregory Thurston	2013/06/28
TomTom GO 2635 Muve	Battery	Positive	father of Gregory Thurston	2013/06/28

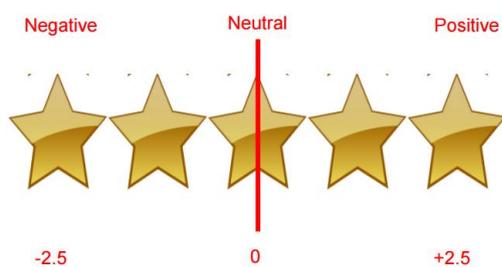
The previous example concerned a review with regular opinions, a different approach is used for comparing different entities (=mining comparative opinions). In this case opinions express whether one brand, product or service is better than another, for instance:

- Non equal gradable comparison: Product A is better than product B.
- Equative comparison: Product A is about the same as product B.
- Superlative gradable Comparison: product A is the best.
- Non-gradable comparison: Product A is different from product B.

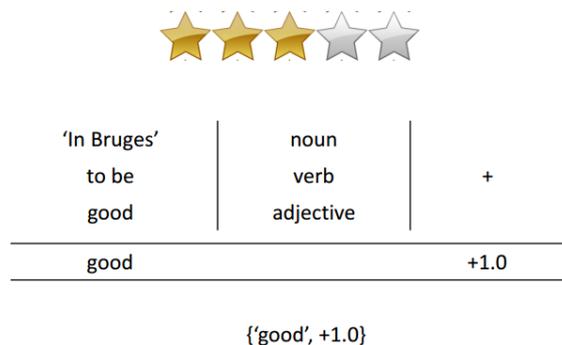
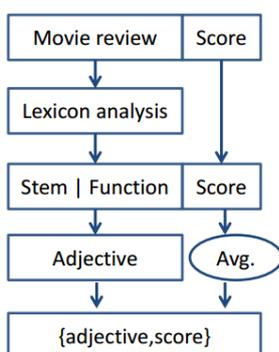
Comparative mining can be shown in a table as follows (note the difference with previous table):

Target (t): Entity 1 (e1)	Target (t): Entity 2 (e2)	Target (t): Aspect (a)	Preferred entity (PE)	Opinion holder (h)	Date (t)
Product A	Product B		Product A	James Kent	2013/06/28
Product A	Product B		Product A Product B	James Kent	2013/06/28
Product A	Product B		Product A	James Kent	2013/06/28
Product A	Product B		-	James Kent	2013/06/28

7.2.3 Example of a sentiment analysis with reviews and ratings



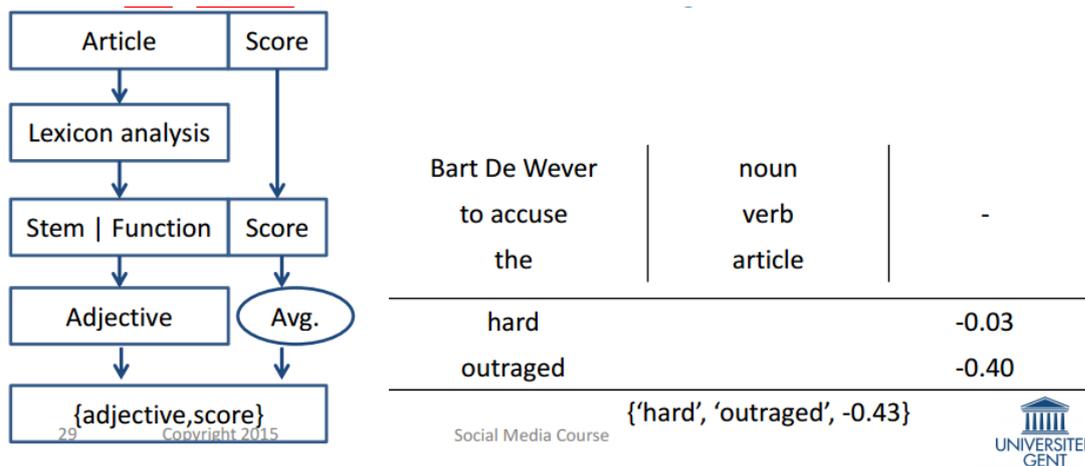
Opinions can also be analysed based on adjectives combined with the corresponding ratings. If for example a movie is rated by a lot of people with a score out of 5, a global score can be derived. The stars of a rating system refer to the notion of polarity and represent a continuum ranging from negative to positive with a neutral value in the middle.



This model shows the translation of a score. When a comment says 'the film was good' and rates with 3 stars, this would normally represent a score of +0.5 but considering the adjective 'good' the 3 stars only refer to this adjective, it

can thus be a slightly positive opinion, the good will be associated with a +1 score, this can be explained by other reviewers who rated films with 4 stars using the same adjective. Hence a sentiment model will first look at combinations of stars with ratings before assigning a score.

When a list of adjectives and scores exist it can be reused to conduct similar sentiment analysis.



This is another example of a sentiment model, which uses two different sentiments with different weights. 'hard' and 'outraged' with the latter being more negative than the former and thus will be granted a higher score as can be seen in the model.

7.4 Big data challenges to opinion mining and sentiment analysis

This section already indicated the power of online reviews and ratings. The question remains whether if all reviews are sincere and thus a critical reflection on the use of text mining techniques is needed. The importance of human input is already shown instead of fully automated mining exercises. Furthermore as online reviews are cheap and highly influence customers and prospects some organisations or people could get tempted to unethical behaviour: an organisation rating itself or pay someone to do so or former employees who launch negative comments after they got fired. So in order to evaluate a review or rating it is important to make some considerations:

- Who is the reviewer?
- What is the purpose of the purchase (bad for someone can be good for you, a restaurant can be suitable for dining with friends but less to go to with a date).
- If a review is extremely positive, be aware the organisation could have written it
- Or vice versa for an extremely negative comment

Besides this unethical behaviour, the techniques of opinion mining and sentiment analysis are also difficult as subjective language is complex, negative words can be used to describe something positive and vice versa. In general the techniques have to deal with following challenges:

- Literal versus figurative meaning of words: words can have multiple meanings depending the context, for example: the activity really sucks (negative sentence), the vacuum cleaner sucks really good (positive sentence).
- Neutral meaning of words: opinion mining is also challenged by words that are used in a neutral meaning: if I find a good HD television in the shop I will buy it. This is not referring to something positive or negative.
- Sarcasm: when the reviewer means the opposite of what he is writing: What a great tool, it stopped working after 2 days.
- Facts without sentiment words: some sentences may look like facts while they have a positive or negative meaning: The hot tub is heated by much electricity, which is negative due to probably high energy costs
- Opinion spamming: this covers the discussion about unethical behaviour and emphasises the need for reliable sources. Opinion spamming refers to the abuse or sabotage by people working at being related to a certain organisation. There are 3 main types: (1) fake reviews

by people who haven't used the product itself, (2) brand reviews instead of reviews about a product or service and (3) non-reviews which are ads and other texts that express no opinion.

7.5 Takeaways

This chapter discussed the technical side of social media as big data analytics in the field of opinion mining, it can be seen as a content analysis of a massive amount of social media to verify what people are telling about an organisation. It's frequently used within the context of social CRM. The monitoring of the messages find out how their brand is perceived, products can be improved, if their marketing strategy is working, to find trends, or detect what the competitors are doing, it may also alert an organisation about a crisis.

It also focused on online reviews and ratings which can highly impact on sales and the price that people are willing to spend. Opinion mining requires an investment but also has a potential in terms of ROI.

Chapter 8: Social network data (Business intelligence 2)

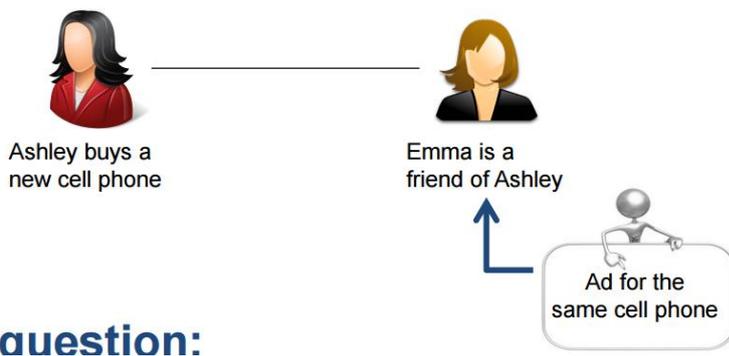
Value can be created by analysing social network data, by analysing these different social media tools organisations can create more complete profiles of employees, customers or prospects which can supplement the social CRM database. This way an organisation can start predicting trends and improve their targeted marketing.

8.1 Introduction to social network data

8.1.1 Examples of social network data in targeted marketing

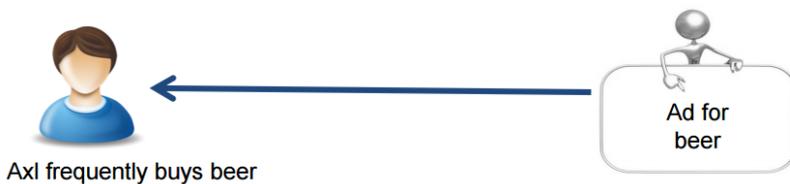


gaming, he will more likely receive an ad for a new game. Hence targeted marketing tries to predict what product the user may be interested in and possibly buy in the near future.

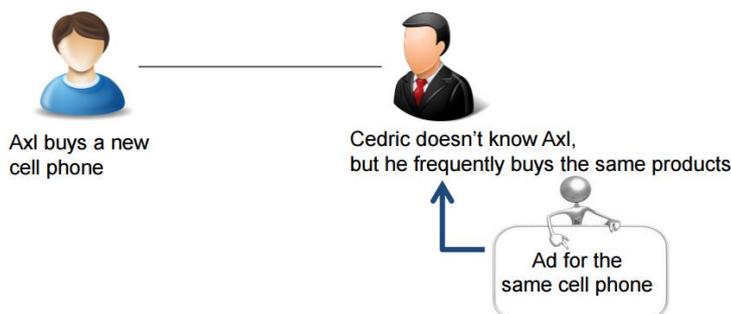


question:

This targeted marketing may also work indirectly (=with social network analysis) it tries to predict which products a user might be interested in (1) based on his/her relationship with other people or (2) based on similar characteristics. For example Ashley buys a new phone, Emma is a friend of Ashley and will receive ads for the same phone.



loyalty cards which can track the products that are frequently bought.



These predictions of future behaviour may be based on online behaviour (=example) but can also deal with offline information such as supermarkets who give customer

A client type is a collection of customers or prospects who conducted similar behaviour in the past, for example who bought the same product, these people are more likely to repeat this similar behaviour (buy the same products) in the future.

Future behaviour can also be predicted based on personal expenses, a bank account may reveal information such as in which shops the person frequently buys products or services, organisations can use this information to derive different client types for targeted marketing. For privacy reasons banks can only sell this information in an anonymous way.

8.1.2 Examples of social network data in other areas

This chapter deals with how social network data can be analysed to discover relevant knowledge based on profiles with similar characteristics which can be used for targeted marketing but also for:

- Customer acquisition and churn prediction: which customers are likely to buy or churn products, in order to know which people have to be sent recommendations.
- Credit scoring: which customers are solvable in order to pay their loans.
- Fraud detection: predict profiles that are likely to commit fraud.
- Health care: profiles that are likely to bully or get a certain type of cancer,..)
- Other: stock price prediction, spam detection, counter-terrorism, public policy,..

This can however go further than merely predicting, for example amazon has a patent on 'proactive sending' which means they proactively send products before a customer has placed an order based on social network analysis and customers with similar characteristics to find out what they might buy.

8.2 Defining social network data

8.2.1 Social network modelling approaches

Research on social networks can be divided in two groups:

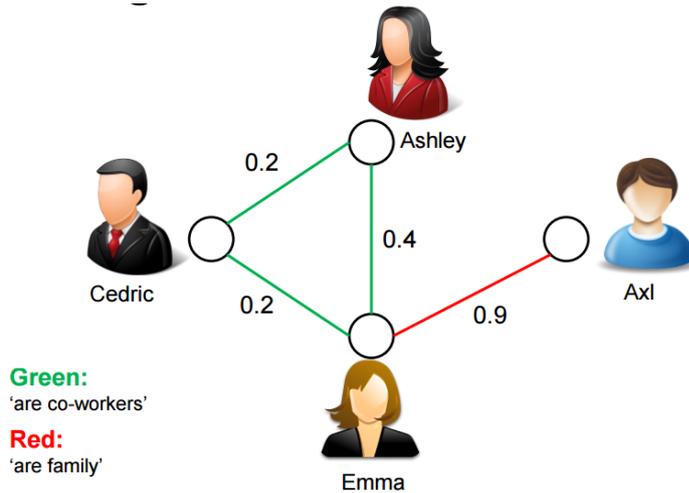
- 1) Descriptive network modelling for social network analysis and community detection:
Is used to gain insight in the structure of a network and identify the members and the different groups as well as how they are linked, for example it can conduct centrality measures to detect social leaders which can be used for launching a viral campaign. Different networks can be interconnected and may reinforce one another by cross-selling each other products and services similar to the ripple effect.
- 2) Predictive network modelling for link prediction and attribute prediction:
Link prediction is used to try and understand the change in network structures and which connections will be made in the future (for example Facebook with 'you may know ...'). It also involves attribute prediction which looks for common characteristics is also called predictive mining, it uses historical data to build a predictive model which can be expressed as a mathematical formula or a logical statement. Thus mining literally refers to digging for information

In sum, descriptive network modelling refers to understanding a phenomenon and predictive tries to predict or estimate a certain phenomenon for a future use.

8.2.2 Definitions

A social network is a number of persons or a group of persons that are related to each other in an offline or online context. Social network analysis or network based analysis refers to using information about links to predict future behaviour or stimulate selling products or services. When social media data are used the social network is called a social media network and social media network analysis is network based analysis that use links in social media tools. Considering their popularity they may have a lot of information to offer.

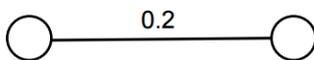
8.2.3 Graph representation



Social networks are usually visualised in a graph, it consists of circles of nodes for representing entities (people,..). The lines represent the links or relationships, these links may differ in strength.

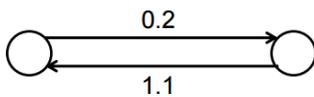
This graph shows a social network with people as entities, the links between the entities indicate that they might know one another or that they have similar characteristics. The strength of the relationship/link/connection can be indicated with a number. It is

however possible to have different weighs between the same entities (one friend feels more connected to the other than the other way around). In such situations, two weights can be assigned



Binary links:

links can be binary (exist or not exist) or have a (positive) weight that represents the strengths of the relationship



Unidirectional links:

links can be unidirectional to form asymmetric relationships.

The previous examples are bidirectional.

by the means of unidirectional links and arrows that indicate the direction of the relationship.

In sum, bidirectional links can be binary (exist or not) or have a weight that represents the strength of the relationship while unidirectional links exist from asymmetric relationships.

8.3 Social network analytics

Before social network data can be analysed, they must be found and collected in a single database. An organisation could find datasets by using customer information, phone logs, health records, government records and social media interactions. The unified database can thus exist of online and offline big data.

When using a database for social network application, a predictive model (for the target variable) will be based on other attributes available in the database. Therefore proper identification and selection is important.

8.3.1 Examples of social network applications (with only offline data)

Age	Avg duration	Avg revenue	Promotions	Bought product?
25	50	85	X	Yes
22	45	73	X	Yes
35	65	123	Y	No
50	12	230	None	No
18	66	55	X	No

If age <30 and average revenue <100,
Then bought product

Make an offer he can't refuse

Originally descriptive and predictive modelling was limited to offline data. The table indicates which customers already bought a certain product, customer analytics looks for shared attributes or characteristics to predict which customers are also likely to buy the product in the near future. In this example the last person has the same profile and an organisation could target this person in particular.

This example show that general rules can be derived from a dataset to predict future behaviour and this by identifying people who have a high probability of conducting a certain act. Deriving such rules is called mining or profiling.

For instance, for reasons of customer acquisition, a telecommunication company may wish to answer following question “Given that a customer named Axl has bought a certain telecommunication service, what is the probability that Axl’s friends will buy the same service too?”

The social network will have (1) nodes represented by customers or prospects, (2) the links will be based on phone calls with a minimum duration and (3) the weights will be determined on the aggregate of all phone calls made between the nodes. The target variable is to know who is more interested in the service and the variables to predict this may relate to: geographical and demographic data, the level of technological expertise, financial information,..

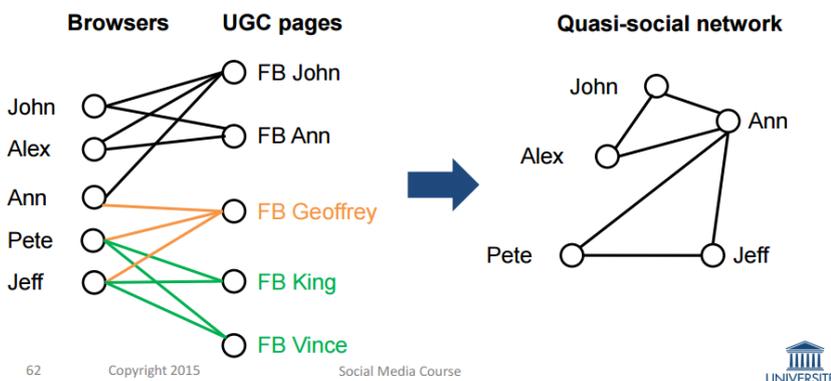
The resulting predictions will facilitate targeted marketing, afterwards the social network can be evaluated by verifying how many of the predictions actually turned into sales.

8.3.2 Examples of social media network applications (with online data)

Social media can be added to enhance the dataset, in particular it helps to find the links between persons which is extremely helpful for organisations who don’t have their own network data (such as a network of phone calls in the telecommunication sector).

Furthermore social media tools do not only record the people who are known users but also their posts, likes, shares,..

All this data can be added to the user’s profile which stimulates social media tools to commercialise this data. This can result in an explosion of data however organisations usually only consider the links of the direct connections (this is the first-degree connections, instead of connections of connections of connections).

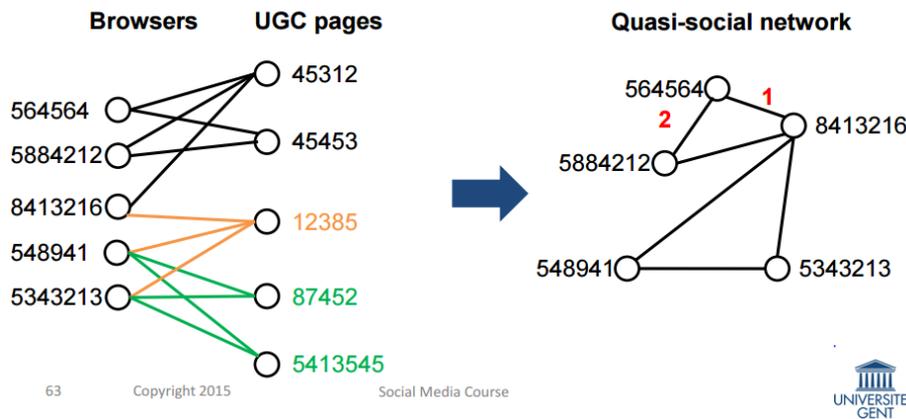


This figure shows how a quasi-social network can be created using online information. Starting from internet users visiting webpages with UGC (user generated content).

Alex and Ann visited the Facebook page of John, it can be derived that they are both linked to John. Also Alex and

Ann will probably be connected as Alex and John visited the Facebook page of Ann. Furthermore it can be derived that Ann, Pete and Jeff are connected as they visited the same web pages. This results in a QUASI-social network because the direct connections are based on assumptions derived from variables nonetheless it remains unsure whether the persons involved actually know each other. This specific procedure to create a quasi-social network is called ‘bipartite graph mining’ because it tries to find bipartite relationships, this is a graph with 2 types of nodes (e.g. browser versus UGC pages of people versus products, interests, Facebook likes, etc..)

Predictive mining tries to protect the privacy of social media users by de-identifying both the browser names and the UGC pages by means of random and unique ID numbers. Hence the network is double de-identified: (1) the ID numbers remain anonymous, (2) no information on browsers or pages is saved.



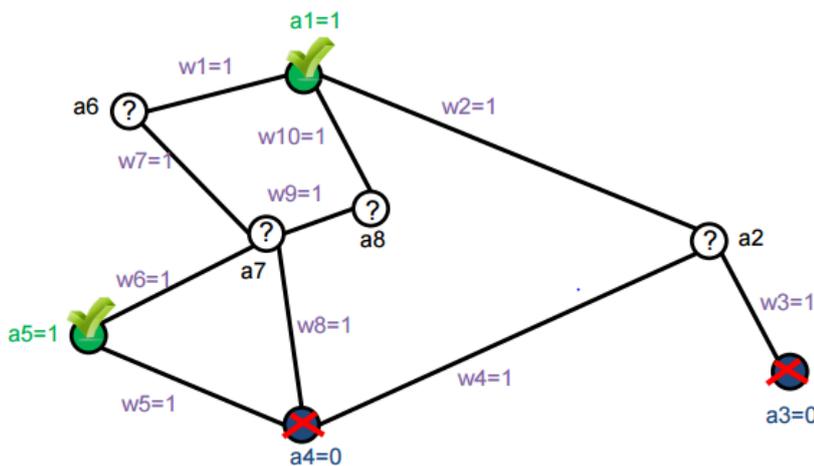
The quasi-social network can be improved by adding weights, based on the amount of pages that are co-visited by two browsers (or individuals). The higher the amount, the higher the weight will be.

8.3.3 Mining algorithm

A mining algorithm runs automatically to process the massive amount of big (social) data in order to make predictions from a (quasi-)social network. The steps in this algorithm will be explained using a case study:

Case study:

- Assume a situation in which an online ad tries to convince people to act (let's say buying a product)
- The network consists of:
 - o People who took action after seeing the ad (buyers)
 - o People who didn't (non-buyers)
 - o People who have not yet seen the ad
- Which persons in the third group are more likely to take action after seeing the ad
 - o Remember display advertising: only show your ad (and bid) for potential buyers



This figure is the starting situation:

- Two buyers
- Two non-buyers
- Four unknown nodes

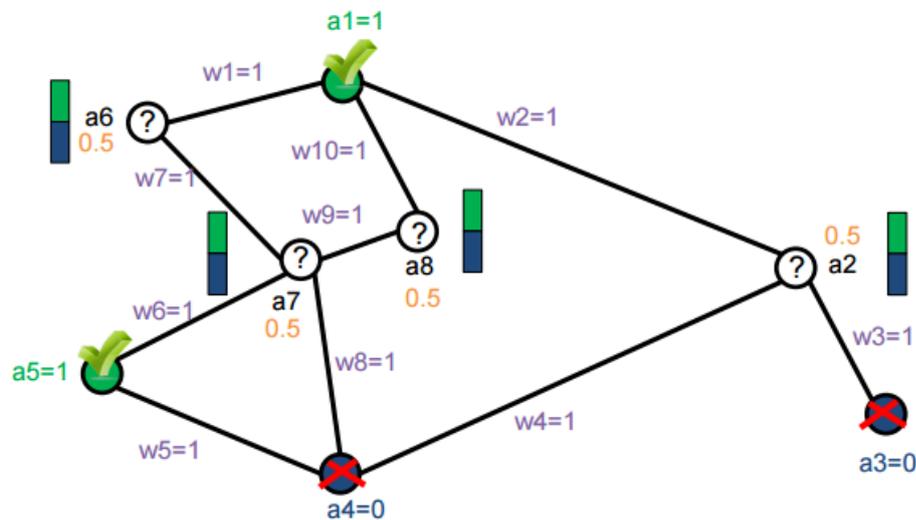
All the nodes have a unique ID number, each known node also indicates a certain action:

- 1 for action (= buying)
- 0 for non-action

Furthermore the links have been provided with weights (=w) which, in order to facilitate the example, all have been put on an equal of 0.

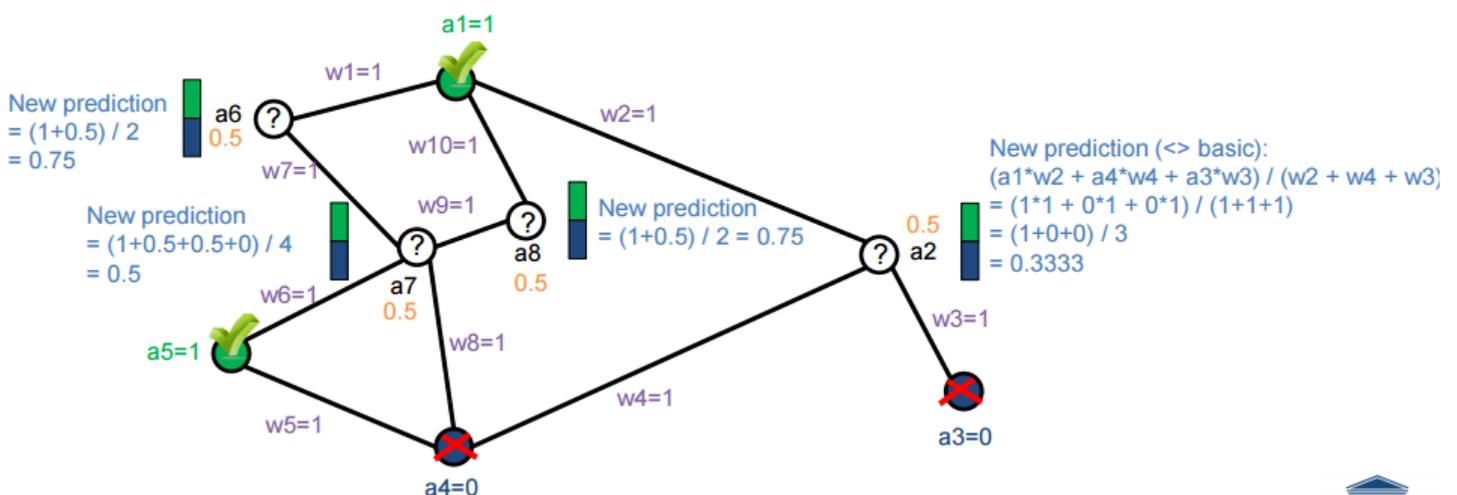
The final aim is to infer a probability distribution for the unknown nodes to identify which nodes are more likely to act and thus buy the product after seeing the ad. We need to derive a score for the unknown nodes. This probability will always range between 0 and 1 with 1 referring to a higher probability to take action and thus become a buyer.

- Basic prediction: average probability derived from all known 'seed' nodes
 - $(\# \text{ buyers}) / \# \text{ seeds} = 2/4 = 1/2 = 0.5$
 - $0 < \text{probability} < 1$



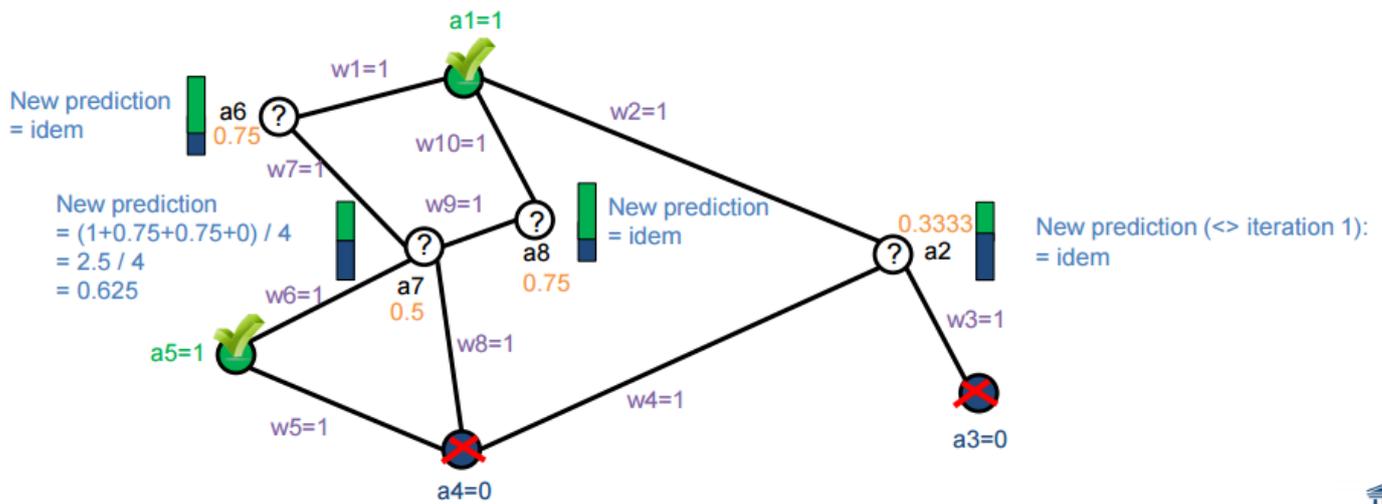
This figure shows the basic predictions, which is derived from all known 'seed' nodes. Seeds are the technical term for known nodes, in the example there are 2 buyers and 2 non buyers which makes four seeds. As half of the seeds bought the product, the temporary probabilities are 0.5. These will be redefined throughout the different iterations and reused as direct input for the next iteration. The rectangles have two parts, the upper representing the likelihood of buying and the lower part the likelihood of not-buying.

- Iteration 1: refine by calculating the average probability over all direct neighbours
 - $[\text{sum of (neighbours * their weights)}] / (\text{sum of their weights})$



In a first iteration, the basic probabilities are redefined by calculating the average probability over all direct neighbours of a particular unknown node. In this case the weights equal 1 so the sum of the weight is just the sum of the neighbours. Remember that the basic probabilities for all known nodes is 0.5 which should be taken into account when calculating the new probabilities.

- Iteration 2: refine by recalculating the average probability over all direct neighbours, taking into account the predictions from iteration 1
 - $[\text{sum of (neighbours * their weights)}] / (\text{sum of their weights})$



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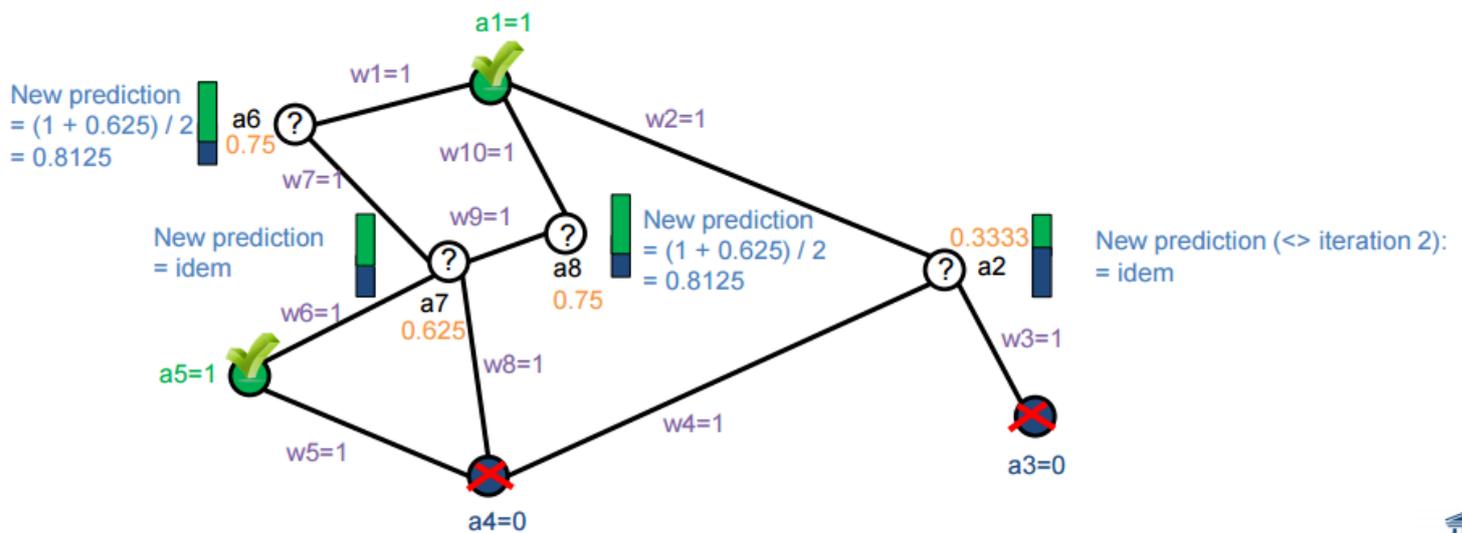
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In a second iteration, the rectangles are adapted to the results of the previous iteration. The figure shows the starting value for a7 has remained 0.5 where it has changed for the other nodes, the same calculation can be redone as in the previous iteration, but taking into account the predictions from iteration 1, the figure specifies that the new probabilities do not change for a2, a6 and a8 because the direct neighbours did not change in value throughout iteration 1, so only a new prediction is needed for a7, resulting in a probability of 0.625.

- Iteration 3: we continue iterating until the probabilities remain stable
 - $[\text{sum of (neighbours * their weights)}] / (\text{sum of their weights})$



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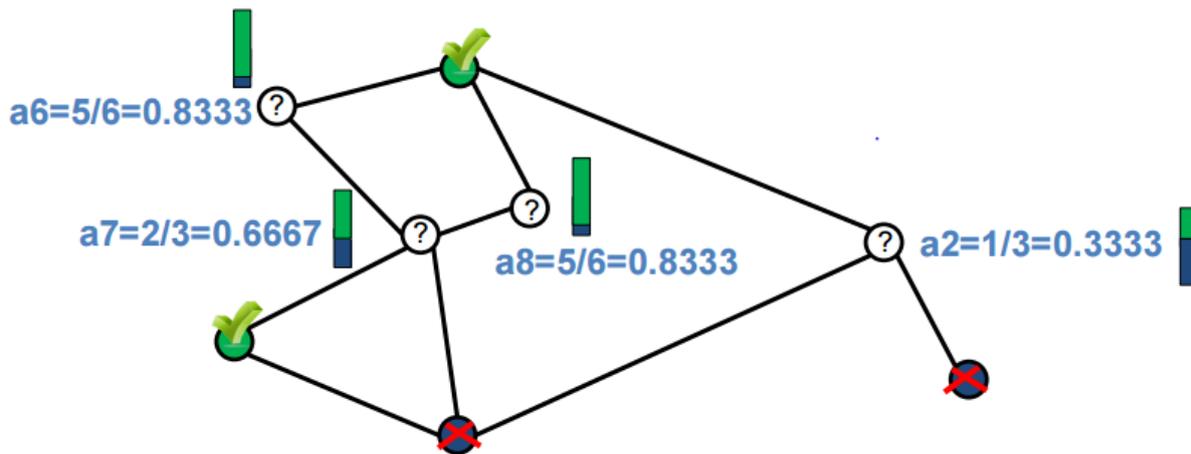
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We continue iterating until the probabilities remain stable. After a certain number of iterations the unknown nodes will not change anymore and the case has reached an end state.

– Iteration x: end state

- Who will you target in your marketing campaign? >50%? >10%?



In real life these calculations happen automatically by means of an algorithm, but this manual example illustrates how organisations can handle network data to gain knowledge. The final probabilities are a value or score between 0 and 1. Be aware that a score of 0.33 should not be read as a chance of 1/3 that a customer will buy the product but rather as a percentage. The final goal is to compare the percentages and decide which persons are potential buyers and worth targeting. For instance an organisation could set its bottom line at 0.5, in this case all of the unknown nodes except for a2 will be targeted.

This is relevant for organisations because online ads are expensive and organisations profit from only showing their ads to people who are more likely to respond to the message. With business intelligence techniques for predictive mining, an organisation can predict which ad must be shown to which user.

For the purpose of predictive mining an organisation can create and combine different databases for instance: (1) a database of internet users who clicked on the ad to collect information about their browser, IP address and cookies (to uncover their interest based on previous clicks) and (2) a customer database with information about the buyers of the product in the ad.

8.4 Triggers for social network data

The previous section clarified that neighbours in a social network are targeted in order to make predictions. It works well because it exploits peer influence (when you know the other person) and homophily (strangers with similar characteristics).

8.4.1 Trigger 1: peer influence

The first trigger is peer influence, this is the degree a person is affected by its peers in a specific situation. The way behaviour from one person can affect the likelihood another person will engage. For organisations it is important to know the influencers in a social network as behaviour can cascade from one node to another. This peer influence can explain the success of viral campaigns. Peer influence occurs when people in the same network have attributes and are not complete strangers to each other.

8.4.2 Trigger 2: homophily

The second trigger is homophily, which means love for the same or the tendency of individuals to associate with similar others. People with the same characteristics are more likely to form a network because similarity makes communication and relationship formation between people easier.

Homophily explains why people tend to behave similarly or buy similar products and services even if they are total strangers to each other. The more characteristics they share, the more likely that they will conduct similar behaviour.

8.4.3 Peer influence versus homophily

Peer influence and homophily can co-exist however one trigger generally will become more decisive to act than another in a specific situation. Also the effect of homophily lasts longer than peer influence. Both are complementary and can be simultaneously present, viral marketing (sharing videos) profits more from high peer influence while direct marketing (online ads) benefits more from high homophily.

Furthermore both triggers can be translated to the theory on the diffusion of innovations, the so called innovators and early adopters are more likely to have other adopters in their neighbourhood because of similar characteristics (=homophily) and will be less influenced by peers. This will mainly occur to the late majority and laggards who are more likely to adopt based on peer influence. In quasi-social networks the connections become stronger when people for example navigate to the same webpages unless it concerns very popular pages or concerns older visits. This implies that mainly homophily counts for creating quasi-social networks. Peer influence only counts if the users also know each other.

8.5 Big data challenges to social network data

The research field of big social data can create value for organisations but still faces some important challenges:

- Social media gives opportunity to add a lot of data but it rather concerns personal data and privacy remains a big challenge however efforts have been made to anonymously analyse the data.
- Another challenge is related to the identification and analysis of social network data, in particular the collecting and access to this data is a problem for a lot of organisations. This explains why it happens more in some sectors who have easy access to organisation owned datasets such as the telecommunication sector
- Regarding the analysis tools and algorithms have to be present, regarding this also technical difficulties exist to maximise the computational power and algorithmic accuracy.

8.6 Takeaways

Predictive mining refers to finding similar characteristics of people in a dataset in order to predict future behaviour, for this social CRM can be used as input. When these predictions are based on profiles (types of anonymous people with similar characteristics) it can be called profiling. These business intelligence techniques are often used in the context of online advertisement as it allows targeted marketing. However their application is a lot broader.

Social media drastically changed the way big data are used they do not only provide organisations with a new data but also allows a more personalised approach due to additional insights.

Chapter 9: e-Recruitment

This chapter clarifies how social media can be used by employers to recruit and by employees to get recruited. Furthermore the chapter reflects on legal and ethical consequences that social media can have on hiring and firing.

9.1 Introduction to e-recruitment

The topic was originally limited to jobsites that post vacancies and resumes to find a match. Nowadays also social media can be used for e-recruitment, in line with opinion mining and sentiment analysis, employees can write reviews and rate a (former) employer. It also allow to anonymously compare salaries or share interview experiences.

Chapter 1 mentioned the spread of social media tools may very per region this also counts for e-recruitment and the used social media tool. When using social media for e-recruitment it's important to know which social media tools can be used for which target groups (LinkedIn for professionals with higher education, Facebook for friends, Twitter for journalists,..). E-recruitment should always serve the organisational strategy this is why the MarCom department will generally attend the HR meetings that deal with e-recruitment. Employers are also more and more aware of the power of employer branding and that this should be approached and nurtured with actual MarCom skills and tools.

Employer branding is a key topic in e-recruitment and deals with the image of being a 'good' employer, this good may have various meanings and should be derived from the organisation's strategy and mission.

Finally e-recruitment means that the internet and one or more social media tools are used for recruiting or talent acquisition initiatives besides traditional databases. Hence organisations as well as employees can combine social media and datasets to gather more relevant information.

9.2 Organisations and e-recruitment: how to e-recruit?

First we take the perspective of an organisation to clarify how a HR department can recruit employees by applying social media. E-recruitment is on the rise, an increasing number of employers spread vacancies only or screen online profiles of candidates applying for a job. This causes a growing market for CV searching technology and CV parsing technology (=automatically converting CVs or social media profiles into a candidate profile). A dedicated corporate database for e-recruitment is also referred to as: Applicant tracking system or Hiring management system. Some organisations have dedicated job descriptions for recruiters responsible for the online HR-related questions and answers on social media, they screen photos and messages, answer questions and keep the online recruiting channels up-to-date. For SMEs e-recruitment can be used to reach more people.

9.2.1 LinkedIn and e-recruitment for organisations

LinkedIn is a networking website for organisations to list job vacancies and search for potential candidates, it only targets professional targets. This causes organisations to be less dependent on outsourcing their HR which results in higher cost efficiency. It may help find candidates by:

- Create a company page that users can follow.
Each organisation gets an individual URL which can be referred to on other social media tools or even emails, on the other hand, the LinkedIn page can contain links to the corporate website. The goal is to get more followers and inform them properly.
- Create a showcase page per product to have a more targeted network of followers.
This creates a dedicated page to highlight different aspects of a business and create relationships with a more targeted network.

- Create a group for discussions.
This can contain Q&A about a brand, products or services. It can also be used to spread links with additional information, when more people read it, they can become interested in a brand and its vacancies.
- Job posting on the LinkedIn page or as an ad.
For this feature the organisation could opt for a free and limited account or a more advanced and charged account the latter is a more advanced use of LinkedIn and involves a bidding process.
- Advanced search engine
In this case LinkedIn is used as a database with professional information about potential candidates and the organisation actively searches for candidates using keywords. It screens the summary on top of a LinkedIn profile, this indicates it is important to add relevant information (previous jobs and employers, education, keywords to promote oneself,..) and to keep it up to date. Once a profile is found it will be screened on the professional expertise. Finally LinkedIn allows to highlight a candidate's skills by means of listening to the rewards of users as well as recommendations and endorsements. These are appreciated because the mentioned skills are then confirmed by other persons.

9.2.2 Other e-recruitment tools for organisations

Also other social media tools can be used for e-recruitment, although Facebook is not a professional network, a lot of organisations have a page which users can like and this gives them access to the users personal information and posts. This page can also be used to announce vacancies or prepare for job interviews as well as compare a candidate's resume with his private Facebook profile to screen for anomalies or inconsistencies.

Also Twitter can be used especially to reach a certain niche (journalist or IT professionals,..). This can be done by tweeting a link to the organisation's vacancies. It is however a more pushy way than for example Facebook. Besides organisations could use an additional job search engine for Twitter to find all tweets with a certain hashtag.

– For recruiting in general:

- #hiring, #tweetmyjobs, #HR, #jobopening, #jobposting, #employment, #opportunity, #recruiting, #rtjobs, #jobsearch, #joblisting, #job, #jobs

– For recruiting certain job types:

- #freelance, #homebusiness, #greenjobs, #dreamjob, #consulting, #consultant, #accounting, #webdesign, #telecom, #legal, #lawyer, #industry, #salesjob

9.3 Employees and e-recruitment: how to get e-recruited?

This section takes the perspective of the employees, the personal information that is posted is to some extent freely available for recruiters. It might be a good exercise to regularly verify which information is available by launching a search query with your own name as keyword. However recruiters also benefit from specialised search engines (e.g. Yatedo and Yasni) specifically for browsing social media data that are publically available. Screening all the available information about a candidate allows recruiters to get to know the people applying for a vacancy. Keeping this in mind it's important to consider the personal information that you reveal on social media.

9.3.1 LinkedIn and e-recruitment for employees

LinkedIn users can invite professional connections to their network by a default message or a personalised one. It's however important to manage these connections strategically and remember that quality > quantity. LinkedIn users can make themselves more visible by adding a profile picture and choose relevant keywords to differentiate themselves from other users. Finally their profiles should be kept up to date and should align with other social media profiles.

LinkedIn users can also manage their public profile by means of privacy settings which determines which information is available to connections and or other people. Finally employees can use LinkedIn for information about organisations, their employees and their skills to prepare for a job interview. It can be seen as a big database from which as much information as possible should be used. Some important advice is:

- Don't lie.
- Do not provide too much details
- Do not share personal information in a professional network.

9.3.2 Other e-recruitment tools for employees

As many people have profiles on non-professional social media tools as well, these can also be used for e-recruitment in extend of the professional communities. Although information shared on these tools belongs to a non-professional community, users should decide to who information will be visible when it is posted. Users should be aware that a rewind button does not exist on social media and messages and profiles cannot be permanently deleted, this emphasizes that users should create consistent messages to compare their resume with their social media profiles.

Twitter contains information about various topics based on tweets and retweets that are available in the public domain, users should carefully choose who they follow in order to avoid an information overflow. It should rather be used to stay tuned about a certain topic than to spread private information. It is less used for e-recruitment but creates opportunities to recruit niches in which networking is important. Some common e-recruitment hashtags are:

- | | |
|---|---|
| <p>– For getting the attention of recruiters:</p> <ul style="list-style-type: none"> • #hireme, #MBA, #linkedin, #profile, #unemployed, #resume, #CV, #needajob , #jobsearch | <p>In line with employer branding, employees can exercise employee branding to increase employability and build a professional online identity. Some tips are:</p> |
| <p>– For educating yourself:</p> <ul style="list-style-type: none"> • #jobtips, #career, #interview, #benefits, #personalbranding, #compensation, #training, #jobhunt, #unemployment, #employers, #jobless | <ul style="list-style-type: none"> • Do a search engine search to discover what can be found related to you. • Clean up social media profiles. • Clearly outline a personal description. • Subscribe to RSS of organisations. |
| <p>– Or be more specific by combining hashtags:</p> <ul style="list-style-type: none"> • #jobs #CityName #jobhuntchat #Resume #IndustryKeyword | |

9.4 Legislation related to e-recruitment

This section elaborates the consequences of social media posts for hiring and firing, it tries to answer - Can I not be recruited for my social media posts ? -Can I get fired for my social media posts ?

Regarding the first question the previous section elaborated the importance of social media for e-recruiters and the answer is affirmative. Recruiters are by law allowed to choose another candidate based on social media profiles, however the organisation should have a clear policy and be open about it and it may not implicate discrimination. Important reasons for not recruiting someone are:

- The candidate lies about his qualifications.
- Low communication skills.
- Negative social media posts or posts with confidential information about previous jobs.
- Inappropriate pictures.
- Discriminating posts.

Once hired employers also risk getting fired due to their social media behaviour, thus the answer on the second question is also affirmative. Employers are allowed by law to fire employees who insult clients on social media. In general social media use is not allowed during working hours but in reality it only causes problems when done excessively. Outside the working hours employees are also expected to use social media in an ethical way, for example criticizing an employer (brand, products, services, clients) is illegal if it can cause economic harm. Further on it is illegal to announce business secrets, deals or confidential information that relate to the user's job, this counts for the current as well as for all previous jobs. Employees should always consider the consequences of their social media actions in their future career.

9.5 Takeaways

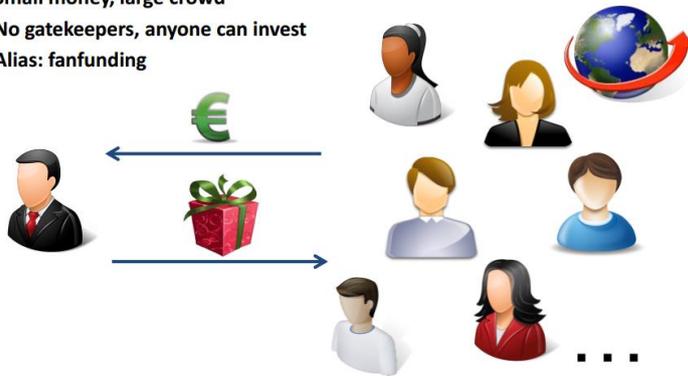
E-recruitment matters for organisations as well as for employees which leads to employer and employee branding. For recruiters it is not necessary to have a first degree connection with a candidate to find out information about them. They will fully screen each candidate for an interview and expect the candidates to have done their homework themselves. Candidates should also make sure they are easily findable on social media tools and that the different tools align and never have contradictory content or incorrect information. Social media tools should always be used for their purpose (LinkedIn for professional reasons, Facebook more personal reasons,..) and users should always think twice before posting on social media. Finally the profiles should be regularly updated in order to appear higher in search engines that recruiters use to find candidates.

Chapter 10: Crowdfunding

This chapter deals with the history and rise of crowdfunding, this is a new funding mechanism to raise small amounts of money from the crowds (as micro investors <-> macro investors such as banks). Crowdfunding may concern a loan that needs to be paid off but most projects f-give rewards in return.

10.1 Introduction to crowdfunding

- Small money, large crowd
- No gatekeepers, anyone can invest
- Alias: fanfunding



An increasing number of people have innovating ideas they want to put on the market but they often lack money, as investment risk exist, investors or banks are not always willing to give a loan. This is where crowdfunding steps in, it tries to gather a small amount of money from a lot of people (the crowd). The challenge is thus to convince as much people as possible of the project.

If you want to invest, in which project will you put your extra money?

- Maybe you will invest if the entrepreneur passes a fraud check and is trustworthy
- If he shows a throughout business plan.
- It is someone you know.
- What if you can decide to invest a smaller budget?

Such arguments may convince people to invest and this is what crowdfunding is all about. In return the investors get a reward (for example a T-shirt) or even become shareholders. As anyone can invest a synonym is fan funding which indicates that the entrepreneur should convince people and get them excited to turn them into fans, maybe investors or even advocates. The advantages of social media should be used to pitch the crowd and clarify the product, business plan, what the investor gets in return,.. also an open dialogue should be present in which possible investors can ask questions.

The power lays with the micro-investors as they decide whether they'll invest in the product or not. In general crowdfunding works with the all-or-nothing approach, which means money will only be exchanged when 100% of the funding target is reached because if the entrepreneur would start working with the money he already received, the risk would be too high for investors to lose their money.

Crowdfunding relies on social networks in which online payments can be made 24/7, it is a very efficient way of finding investors and is highly accessible for people around the world.

10.2 Defining crowdfunding

- Crowdfunding is the practice of **funding a project or venture** by raising many small amounts of **money** from a large number of **people**, typically via the **internet**
- Crowdfunding is the collective effort of **individuals** who network and pool their **money** usually via the **internet**, to support **efforts** initiated by other people or organisations.
- Crowdfunding is the practice of getting a large number of **people** to each give a small amount of **money** in order to provide the finance for a **business project** typically using the **internet**.

Based on the common elements in the definitions, crowdfunding is about: (1) raising money, (2) for financing or investing in efforts, (3) from a large number of people and (4) via the internet. It can be used for a wide range of activities: charity, disaster relief, R&D,...

Crowdfunding is part of the larger crowdsourcing which refers to outsourcing to the crowd to save money in an organisations way of working. This refers to a function previously performed by an internal employee now outsourced to the crowd Unlike the traditional outsourcing an open call is made to the crowd.

The crowdsourcing can be translated to crowdfunding as follows:

- Instead of a function, crowdfunding implies the funding of a project.
- Similar to crowdsourcing, it relies on the crowd.
- Crowdfunding also refers to an open call on the Internet and by using social media.

Hence crowdfunding is an application of crowdsourcing which works as follows:

- 1) The entrepreneur need a recognised crowdfunding platform to present his project using a webpage.
- 2) On this page the entrepreneur gives information about the project (the pitch) the more information, the better. This is not necessarily limited to text.
- 3) He should stipulate the perks of becoming an investor, this usually depends on the amount of money that the entrepreneur invests to stimulate further investments.
- 4) The entrepreneur then should mention the target amount of money and how many he already gathered (=pledged) from investors (=backers).
- 5) Mostly the all-or-nothing principle is used, as discussed before.
- 6) There also is a separate section in which questions can be asked, this creates the opportunity for the entrepreneur to convince people to invest.

10.3 Origins of crowdfunding

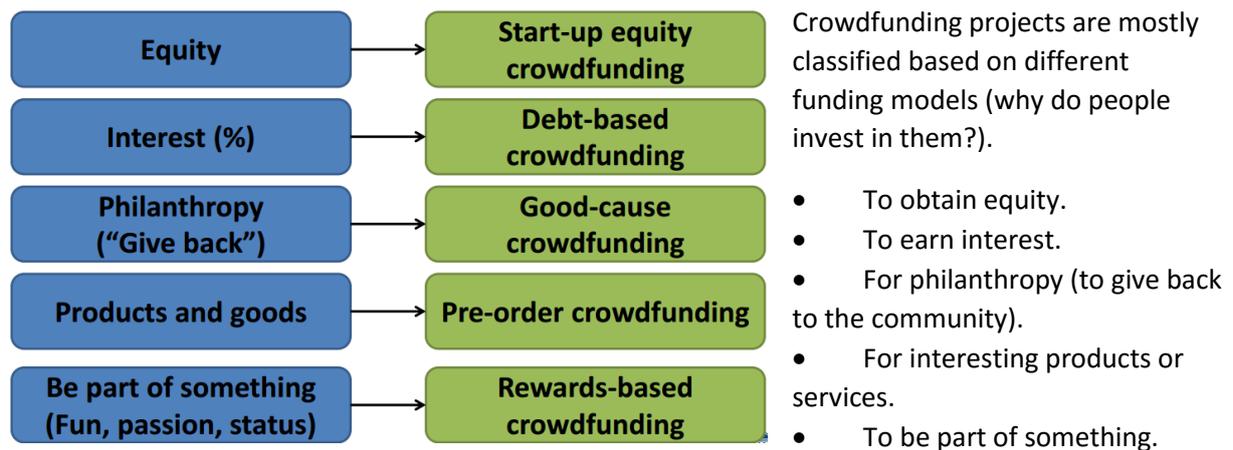
Crowdfunding has its origins in the mid 2000's, it became popular during the crisis when financial institutions were less likely to grant a loan and private persons still had saving on their accounts with a very low return. Organisation had to find other ways of gathering money.

Crowdfunding is relatively new and contrasts with the traditional funding sources which can be arranged according to their desire for information and control ranging from: (1) friends and family, (2) seeds, (3) incubators, (4) (super)angels and (5) traditional VCs (venture capitalists).

VCS typically invest the most amount of money compared to the other groups.

Crowdfunding with its small amounts of many people could be placed between friends and family and the traditional funding sources. It benefits from social media and viral messaging to reach friends and family but also complete strangers (remember the social ripple effect). In theory all types of investors can benefit from crowdfunding? Further on crowdfunding makes it possible for people to invest who are not capable of investing large amounts of money. Finally also the entrepreneur can benefit due to critical reflection from the crowd to improve the business plan and validation by wisdom of the crowd.

10.4 Crowdfunding types and platforms



The five goals are linked to 5 funding models as can be seen in the figure above?

10.4.1 Type 1: equity crowdfunding

The first type emphasizes equity, which refers to ownership, market share or value of a company that is divided among shareholders. This type is especially related to start-ups. This entails a higher risk than other crowdfunding types and is therefore illegal in some countries.

AngelList, LocalStake or Seedrs are some platforms that can be used to launch equity crowdfunding projects.

10.4.2 Type 2: debt-based crowdfunding

The second type is a debt-based or lending-based funding model. Instead of going to a financial institution the entrepreneur lends money from many investors which he will pay back with an extra interest. Synonyms are micro-financing or peer-to-peer (p2p) lending.

Platforms for this type are: LendingClub, Prosper,..

10.4.3 type 3: good-cause crowdfunding

The third model is good-cause crowdfunding which is frequently (but not limited) done for non-profit projects. People donate or lend money for a project with good moral or ethical value. It can also be done to grant loans to people with a low income and is thus called social lending. For example a loan to a farmer in a developing country to buy seeds. The target amount is usually smaller than in debt-based crowdfunding.

Platforms are: Kiva, FirstGiving,..

10.4.4 Type 4: pre-order crowdfunding

Pre-order funding means that people make pledges to pre-buy a product or service for later delivery, the investors do not get any financial return but become one of the first buyers and users of a certain product or service.

Platforms: Kickstarters, Indiegogo,..

10.4.5 Type 5: reward-based crowdfunding

This is the oldest type, the investor gets a predefined perk or reward (e.g. a T-shirt,..). This type can be considered as a variation of good-cause and pre-order crowdfunding as it doesn't emphasize money but rather the satisfaction to help someone while getting something in return that is perceived as valuable.

Platforms: Kickstarter, artistShare,..

10.4.6 Crowdfunding platforms

A crowdfunding project is always funded on a recognised crowdfunding platform to be conform to legislation. The platforms can be pledging platforms that focus on pre-orders, rewards or donations or rather capital marketplaces which focus more on equity, lending or both.

10.5 Tips and tricks for crowdfunding

10.5.1 Before a crowdfunding project

Before a project starts the entrepreneur can prepare for a fraud check by publishing his name, the company name, address, .. To further protect the investors a business plan and pitch should be present accompanied by a financial plan that describes the costs and future revenues. Also all the efforts that must be done should be mentioned as well as how the funds will help with this. In case of equity crowdfunding it should also be specified how much ownership the investors get. Nonetheless most crowdfunding projects give perks.

The perks must be created in order to stimulate people to invest in the product, they should be unique, creative and personal? Usually 5 to 8 perks are created per project but this might change during the campaign. The entrepreneur should not be too creative because he should be capable to finance these perks. Some examples are: early access, discounts or vouchers, limited editions,.. Before launching a crowdfunding campaign, a pre-campaign should be held, this is meant to obtain some first-degree connections of people who belief in the project. Hence the entrepreneur is looking for trust based interactions without asking for money.

10.5.2 During a crowdfunding project

When the project actually starts the early believers become the first investors, this early money is important as it can inspire other people to invest as well. Taking into account that crowdfunding campaigns are limited in time this may be a big advantage.

During the campaign, the entrepreneur should start pitching which involves fundraising by organising meet and greets, demonstrations, responding to questions,.. It is all about the communication, especially about aspects as: perks, media coverage, updates,..

Based on the principles of social CRM the investors should feel special and that they belong to an exclusive community. When people are engaged and the perks are attractive they might invest more than once. This can be reached by for example sending them updates besides the publicly available information. Social media is a great tool to communicate about the project.

10.5.3 After a crowdfunding project

If a crowdfunding campaign raises more money than expected, the extra revenue can be used for additional services or to grant better perks. When the target amount is not reached, the backers don't give the money to the entrepreneur because the project is too risky. The entrepreneur can take advantage of this situation to improve his idea and business plan.

When the amount was successfully raised there are still some risks for both investor as entrepreneur. For example it is possible that the entrepreneur is not able or does not want to give the promised perks (because the product has a delay or flops), an organisation could go bankrupt or the entrepreneur turns out to be a fraudster. The crowdfunding platforms stop when the money is gathered and transferred, from there on the parties are protected by legislation. The crowdfunding platforms then can only be used to leave comments on the project page.

10.6 Legislation related to crowdfunding

Crowdfunding is a new and popular mechanism for fundraising and this makes that the legislation is still complex and rather unclear as it varies from country to country. When a land has not yet adopted special legislation for crowdfunding, the traditional legislation for fundraising is in order. This implies that some forms of crowdfunding are illegal or ethically less appropriate, especially for equity and debt crowdfunding.

For debt crowdfunding this problem may be that the people who apply for a loan have to be creditworthy.

The reason for equity crowdfunding is that the traditional laws protect the investors for the risk on investment, this implies that the investors are accredited which means they should have a high income or net worth. The latter however contrasts with crowdfunding where a lot of small amounts are gathered from regular people, what also contrasts is the shareholder cap (= the maximum amount of investors).

In order to solve this issue some countries recognize crowdfunding as an exemption on the traditional fundraising. In the US the Jobs act exist which stipulates the conditions under which equity crowdfunding is legalised for start-ups as it creates jobs and thus has an economic impact. In the EU a harmonised European crowdfunding network exists but the legislation still defers from country to country. In awaiting for legislation a country could regulate that crowdfunding projects that exceed a certain target should have specific approval from a national authority.

Meanwhile crowdfunding projects can take measures to protect the investors. The project should have a business plan, information about the entrepreneur, the idea and a fraud check. Further on money can only be raised on a registered platform with an all-or-nothing principle. The entrepreneur should convince the crowd or the project remains unfunded. Social media can help with this convincing as it is free, allows direct feedback, is a many to many media and can go viral within a short period of time.

On the other hand it contains risks for the entrepreneur, in general he has to fulfil the promised perks. Further on as crowdfunding means convincing the crowd, also competitors get access to the ideas and thus there is a risk of disclosing business secrets. Larger risks are related to equity crowdfunding in which investors become shareholders. Two long term problems may arise: (1) for decision making and (2) for follow-up funding.

For the first, depending on whether the majority decides, macro shareholders could be forced to follow the opinion of micro shareholders. It might be more practical for the micro shareholders to be represented by a single spokesman. Secondly, the clauses in a crowdfunding contract may contrast to the needs of macro investors which makes follow up funding more difficult. Both risks indicate that an organisation may go bankrupt and the investors risk losing money after equity crowdfunding.

10.7 Takeaways

Crowdfunding is a new way to raise money from the public but should not be considered the most ideal funding mechanism it should rather be used as a plan B. When opting for crowdfunding the entrepreneur should understand and involve the audience and spend enough time on his business plan. A crowdfunding platform should be chosen in accordance with the business plan? Furthermore entrepreneurs should be careful with the complex legislation on crowdfunding.

Chapter 11: Legal and ethical issues in social media

Legislation and ethical issues have already been discussed in other sections, this section will supplement these. The goal is not to give legal advice but to encourage the reader to reflect properly on social media.

11.1 Introduction to legal and ethical issues in social media

For example you are a blogger and therefore a key influencer in the IT community and a software company asks you to write a support blog for new products. To act in an ethical way this blog may still be published if the writer mentions that the organisation requested this, the writers affiliation should be disclosed. The disclosure of the relationship is relevant to the blog readers. This means writers should be honest about their relationship, opinion and identity.

Examples of unethical behaviour by organisations could be:

- Ghost tweeters.
- Fake customer reviews.
- Fake chat room members.
- ...

But also their employees can act in an unethical way:

- Revealing business information online.
- Insulting clients or colleagues online.
- Posting obscene photos about their spare time.
- ...

These examples may seem obvious but a lot of people post content without giving it a lot of thought and this unethical behaviour may harm the employer. Social media ethics are an important topic due to the rapidly increasing use of social media tools, this rise has also blurred the boundary between professional and private life and this between freedom of speech and unethical posts. Some potential dangers of social media are:

- **Privacy:** Chapter 4, 8 & 9
- **Discrimination:** chapter 9, social media can give evidence of discrimination or harassment.
- **Copyright:** you cannot post someone else's work without permission from the owner.
- **Intellectual property right (IPR):** this concerns the ownership of content on social media platforms, is this for the employer, employee or the platform.. Besides this an employee should never post business secrets online, align with this the question may arise who is the owner of online contacts gathered during a certain job.
- **Terms of service:** when an organisation starts a profile on a social media platform it should accept the terms of service and to fully understand these a legal advisor should be contacted.
- **Disclosure or relationships:** relationships should be disclosed when acting online
- **Disclosure of location:** an employer or employee may indirectly reveal business secrets by mentioning his location online (e.g. a city or a certain airport or another organisation).
- **Defamation:** If an employee publishes false information or lies about someone to damage his reputation, the organisation may sometimes be liable for this.
- **Office drama:** posts that hurt or embarrass colleagues.

It is important that employer and employee are aware of these dangers. Ethical behaviour strongly depends on a relationship of trust but organisations may also educate their employees to recognise dangers and respond properly by means of social media policy and supplemented training.

11.2 Social media ethics by organisations

This section deals with the actions organisations can take to encourage ethical behaviour on social media, this is by building trust but also create a social media policy with corresponding training.

11.2.1 Social media policy and training

A social media policy is often part of a larger IT policy on business conduct, organisations could create them from scratch or rely on ethical communication guidelines of industry associations.

Besides addressing the potential dangers, a social media policy may also consider:

- **Social media (policy) audit:** social media use should align with the social media strategy which supports business objectives or solves business problems. In order to know which problems should be solved a social media audit can be performed with surveys or in-depth interviews. This may uncover if employees use social media in an ethical way, are aware of the social media policy and whether the managers have an accurate idea of the employee's use of social media. Based on this info additional trainings could be provided.
- **Communication principles and standards:** a social media policy describes the way employees are ought to act which should be consistent with the corporate values, it also can set the organisation's online voice and tone.
- **Chief social media officer:** the rise of social media is accompanied by the rise of a job description of chief social media officer, this should be someone who is business savvy as well as social media savvy.
- **Social media monitoring and training:** organisations should regularly review social media dashboard standards. Monitoring social media behaviour is ethical as it is mentioned in the policy as well as the blocking of certain pages or social media tools. Trust might be an alternative for the latter by hiring people who fit in the organisation and training them.
- **Disclaimers:** when acting online it should be clear whether someone is representing an organisation or oneself. This can be done by providing a disclaimer, this is a disclosure of relationship it could mention: the name, whether he was paid for posting the content,...

Examples of possible disclaimer are:

- For transparency, please provide a disclaimer if using a tool that is not sponsored by the organisation
- On Twitter:
"These tweets are my own, not those of company XYZ"
- On a blog sponsored by the organisation:
"Some of the individual postings to this site, [including the moderators,] work for company XYZ. Opinions expressed here and in any corresponding comments are the personal opinions of the original authors, not those of company XYZ"
- On a third-party blog:
"The opinions expressed in this blog are my own views and not those of company XYZ"

11.2.2 Terms of service of social media tools

Social media tools can stipulate their own terms of service, users can only make use of the tools after accepting these terms and are thus often called 'terms of use'. They are considered as general information but can also give additional guidelines for law enforcement authorities.

Most people don't read the terms of use and just accept them because the terms are qualified too long or written in legal terms, this is why the "didn't read initiative" was set up which rates the different terms of use from A = very good to E = very bad.

Another issue is related to intellectual property and in particular the ownership of online published content, most social media tools give all rights to the user which means they remain solely responsible for UGC. Nonetheless the platforms may reuse pictures or content even when deleted by the user.

A final issue is related to copyright infringement, which means users may not copy and post content created by someone else without his consent. This differs from sharing someone's post.

11.3 Social media ethics by employees

As discussed it is important to regularly check what content is available by conducting me-searches, as screening using social media is not merely conducted by for example recruiters. Hence only reputation management is also important for employees.

There are different approaches to assess whether someone is ethically correct or not, ethical framework generally distinguish following approaches:

- **Utilitarian approach:** ethical decisions will choose for the behaviour that maximises utility (most useful, most positive) with regard to its outcomes for stakeholders.
- **Rights approach:** choose behaviour that best protects and respects the rights of all stakeholders.
- **Fairness and justice approach:** behaviour that serves the community as a whole.
- **Virtue approach:** behaviour that best reflects virtues or ideals.
- **Principle approach:** support behaviour that best fits a specific code of ethics.

11.3.1 Dos and don'ts for social media use

Regardless of professional or private use, users should respect some ethical dos and don'ts:

- **Policy:** when communicating related to an organisation, employees should act in accordance to the social media policy and other ethic codes.
- **Permission:** when communicating related to an organisation, employees should ask permission from their manager, written permission may be necessary when it concerns confidential or copyrighted information and identifiable customer information should not be posted without the client's permission.
- **Confidentiality and professionalism:** additional to the policies, organisations may ask employees to sign a non-disclosure agreement. Nonetheless confidentiality should always be contained regarding internal use and business secrets should not be revealed. Employees should also always avoid statements about the financial performance of current or former organisations.
- **Reputation management:** employees should contribute to online reputation management to protect their own and their organisation's reputation.
- **Privacy:** users should set privacy setting to safeguard private information. Also different account can be created to set clear boundaries between professional and private activity.
- **Discrimination or harassment:** employees should avoid vulgar, discriminating,.. content?
- **Informal social control:** employees should report unethical content or behaviour.

11.3.2 Digital afterlife

What happens with social media content when a person dies? Users can take some precautions in the form of a 'digital will'. A first question might be if your legal heirs are aware of your profiles and have access to them. A second question concerns the ownership of social media data which relates to copyright issues and the discussion of the terms of use.

Social media tools do not necessarily give legal heirs access to the profile of a deceased person.

Hence it you could consider to give a list of tools you use + password to relatives. Some commercial organisations try to make money out of this service.

A lot of social media tools start having account settings for example Google's 'inactive account manager' allows the user to create a digital will, it allows to set a timeout period and sent notifications when this period has ended, it also allows to delete the account afterwards.

11.3.3 Privacy and passwords

Following previous section it might be useful to list up all your online memberships with corresponding username and password. This list should be regularly updated as login details change over time. The list should then be safely stored.

Given the relevance of passwords this section gives some general tips for creating strong passwords.

- **Creation:** the password should be at least 8 characters long and use non-words rather than names, dictionary words or spelled backwards. Also avoid common sequences as azerty or 123456. You should combine lower- and uppercases with numbers and special characters.
- **Unique use:** passwords should not be used for more tools, the different passwords can be remembered using a trusted password manager.
- **Extra:** users could use biometrics such as fingerprints or a multi-step or multi-factor authentication process
- **Privacy:** when using someone else's computer uncheck the 'remind my password' function and never let an account logged on without surveillance.

11.4 Takeaways

Every user remains responsible for their own social media behaviour however organisations can discipline employees by means of a policy related to social media and IT. Social media relationships should be built on mutual respect, trust and loyalty.

Social media users have the right to get privacy and freedom of speech but to a certain extent. Users should always act professionally.