# Professional Basic English
# Lecture 8

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# Homework 2 - comments

- Task to write a group e-mail to colleague and an e-mail to boss
  - Informing about cancellation of presentation and asking to reschedule the presentation: it is a good idea to keep the tone polite
- Not right or wrong answers
  - However, assuming typical workplace relations, the e-mail to the colleagues could be less formal than the e-mail to the boss
  - Opportunity to practice writing in different style to different recipients…

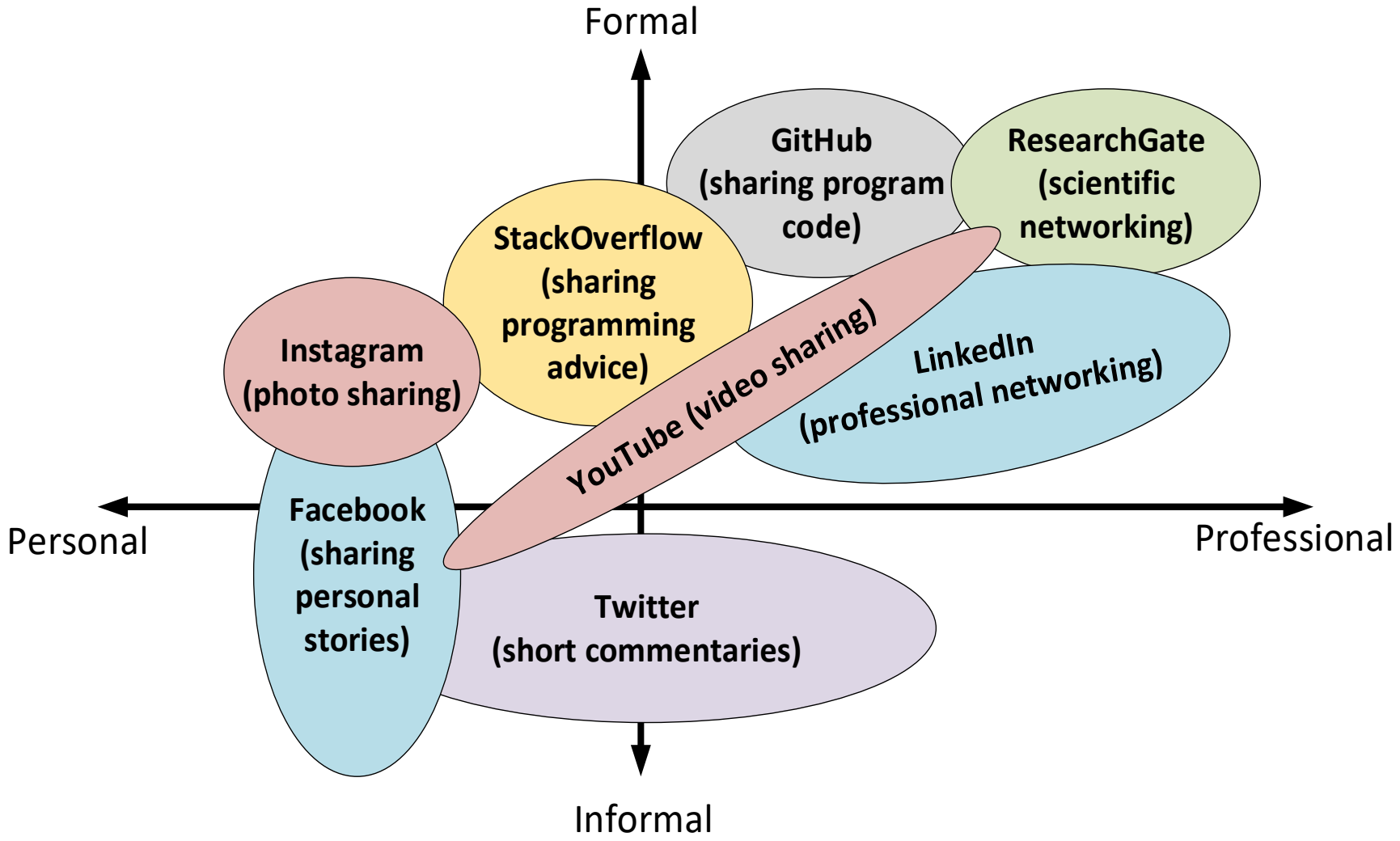
# Communication in social media

- Social media is an important tool for professionals
  - People share their professional achievements, conference attendance etc. in social media platforms
  - Some websites and apps designed primarily for sharing personal life and thoughts, but there are also platforms particularly for professional networking (e.g. LinkedIn)
- Visibility in social media is becoming more important
  - Platform for finding collaborators or even employment offers
  - Creating content in social media can be helpful to build professional reputation (influencers)

# Tone in social media

- Typically tone is more informal than e-mails, memos etc.
  - More humoristic tones, sharing memes etc.
  - However, you need to know your platform!
- Targeting professional vs. personal contacts
  - In many platforms, it is possible to restrict the visibility of the postings to certain persons or groups
  - Provocative statements and very personal stories about working life are sometimes shared in platforms like LinkedIn
  - However, professional or semi-professional tone is a safer tone, especially if you haven’t earned a high professional reputation yet

# Western social media ecosystem



# Classroom task 1

- What is the likely platform and target audience of the following social media posts?

# Classroom task 1a

- What is the likely platform and target audience of the following social media posts?

I think we have been carving enough pumpkins for this Halloween!

# Classroom task 1b

- What is the likely platform and target audience of the following social media posts?

Congratulations to our new PhD, Mark Markson, who defended his thesis successfully today! Also thanks to the evaluation committee for their hard work.

# Classroom task 1c

- What is the likely platform and target audience of the following social media posts?

Our new collection of shoes is now available! Check your local shoe store or our online shop.

# Classroom task 1d

- What is the likely platform and target audience of the following social media posts?

I am happy to announce that I will start in a new position at GreatWebCompany in next month! I wish to thank all my colleagues at Lemon Computer for the past few years. I am sad to leave all the great people I worked with, but also excited for the new challenge.

# Classroom task 1e

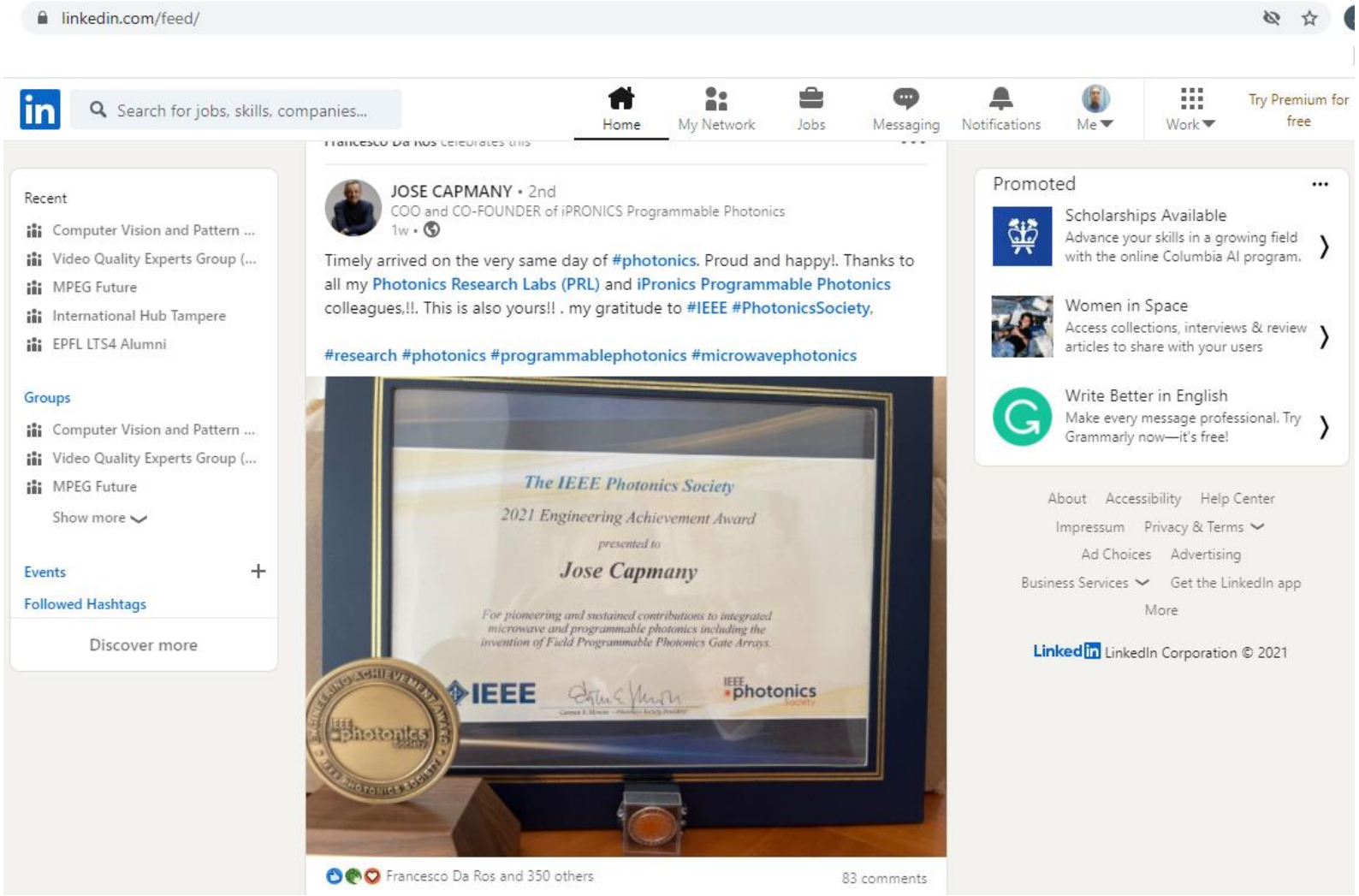
- What is the likely platform and target audience of the following social media posts?

Working overtime for the third time this week... this job is going to kill me. ☹

# Features of professional social media

- Feed for posting news (e.g. promotions, awards, general thoughts) or links to interesting articles
  - Often possibility to share, like, or comment
  - Privacy settings: postings can be public, or just for contacts etc.
- Sponsored content (e.g. job advertisements)
- Private messaging (you need to be contacts in some platforms)
- Private / public groups (e.g. professional interest groups)
- Commenting, discussion forums

# LinkedIn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For pioneering and sustained contributions to integrated microwave and programmable photonics including the invention of Field Programmable Photonics Gate Arrays.
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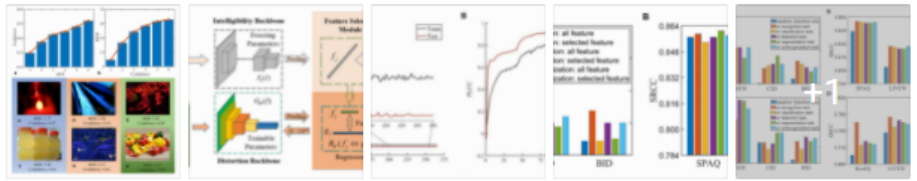

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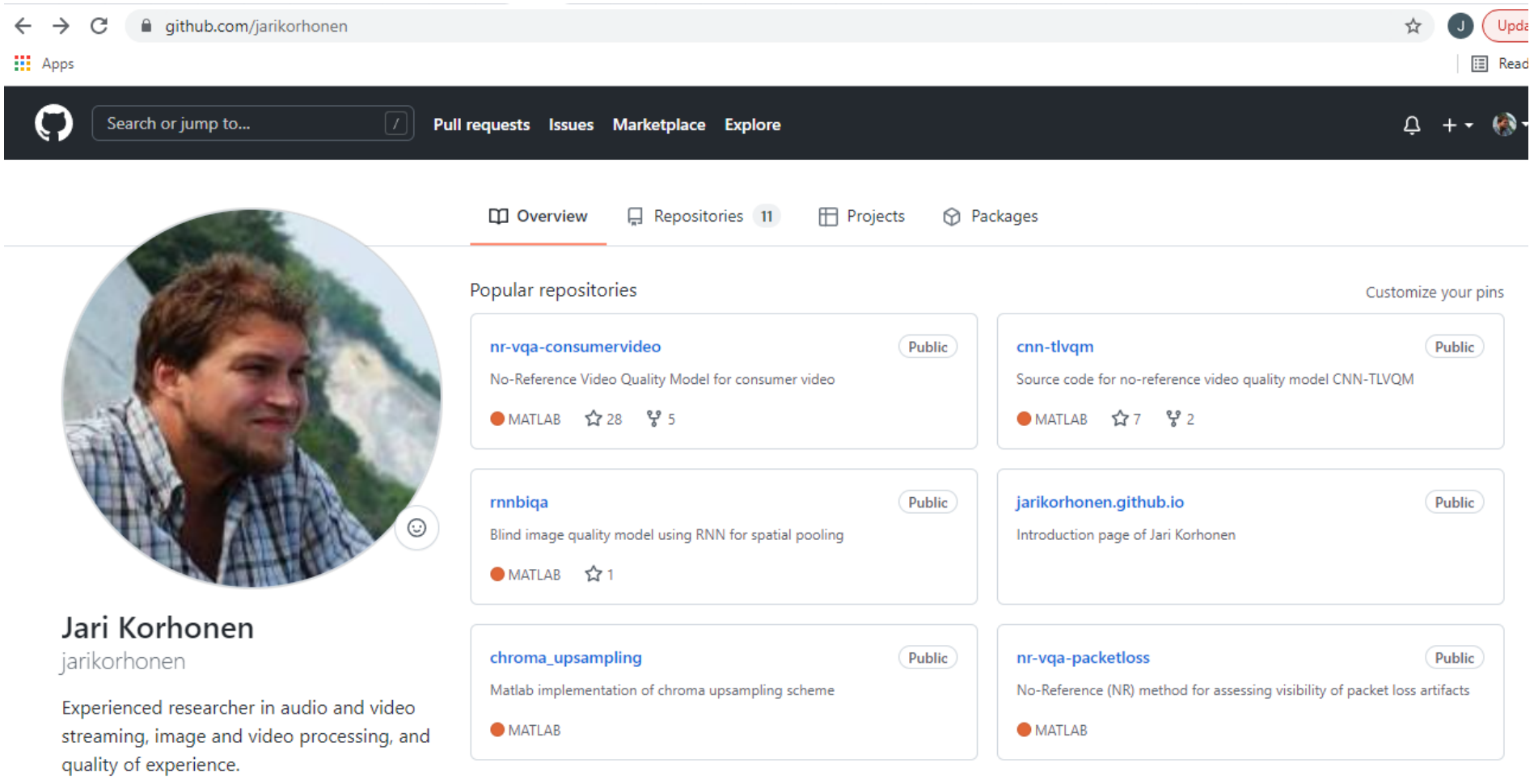
# GitHub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# Risks of social media…

- Good to consider carefully social media postings: sometimes things can go badly wrong


# General advice for social media

- In professional platforms, make an appropriate profile
  - You probably want to keep personal and professional profiles different… (including e.g. LinkedIn profile or WeChat business account)
  - Profile picture shouldn’t be too funny or casual (showing personality to some extent is acceptable)
  - Keep the text in your profile (e.g. description of previous experience) short but informative (people have little time to read long texts)
- Pay attention to the right keywords
  - Help to show your profile and postings to the relevant audience
  - Automatic filtering based on keywords for e.g. job applications

# Asking for advice

- It is possible to share knowledge and ask for advice (e.g. programming problems) on many platforms
  - Different professional interest groups in LinkedIn
  - Specialist websites, such as StackOverflow or GitHub
  - Scientific platforms with possibility of commenting (e.g. ResearchGate)
- Right tone is recommended to get (good) answers
  - Use the search function first; people don’t like to answer the same questions many times
  - Some users may be arrogant or sarcastic, but in general it doesn’t help you to get your message through or to get good advice

# Classroom task 2

- Read the shared three questions posted on stackoverflow.com
  - Which one of the questions would you expect to get the best answers?
  - Can you identify any special problems with the questions?
  - How could the questions be improved?

# Classroom task 2, question 1

## What is seed in util.Random?

I can't understand what was the meaning of Seed in java.util.Random ? I had read Why does this code print “hello world”? question and I am still confuse about **seed** . Can anyone describe me kindfully what was **seed** actually mean ? Thanks.

In documentation for setSeed() method ... what does mean seed - the initial seed ?

public void **setSeed**(long seed)
Sets the seed of this random number generator using a single long seed. The general contract of setSeed is that it alters the state of this random number generator object so as to be in exactly the same state as if it had just been created with the argument seed as a seed. The method setSeed is implemented by class Random by atomically updating the seed to
*(seed ^ 0x5DEECE66DL) & ((1L << 48) - 1)*
and clearing the haveNextNextGaussian flag used by nextGaussian().
The implementation of setSeed by class Random happens to use only 48 bits of the given seed. In general, however, an overriding method may use all 64 bits of the long argument as a seed value. **Parameters**: seed - the initial seed

I would expect if I can understand exactly meaning of seed , I am sure I will understand clearly to this answer.

# Classroom task 2, question 2

What is a seed in relation to a random number generation algorithm and why is computer time used to create this seed more often than not?

I read that ***seeds*** are used to initialize random number generators. But seems like the randomness of the seed doesn't matter much for getting good randomness from the generator. So I want to understand what is a ***seed*** actually? Why is it called so? And lastly why ***time*** in a computer system is used to generate such seeds?

# Classroom task 2, question 3

What is random seed about?

For example the code below. It has a random class. However it always produce the same output everywhere . In this case which item is the seed?

```
import java.util.Random;
public class RandomTest {
   public static void main(String[] s) {
       Random rnd1 = new Random(42);
       Random rnd2 = new Random(42);

       System.out.println(rnd1.nextInt(100)+" - "+rnd2.nextInt(100));
       System.out.println(rnd1.nextInt()+" - "+rnd2.nextInt());
       System.out.println(rnd1.nextDouble()+" - "+rnd2.nextDouble());
       System.out.println(rnd1.nextLong()+" - "+rnd2.nextLong());
   }
}
```

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# Classroom task 2, question 1


3 Answers

Active | Oldest | Votes

11

A pseudo-random number generator produces a sequence of numbers. It isn't truly random, but generally a mathematical calculation which produces an output that matches some desirable distribution, and without obvious patterns. In order to produce such a sequence, there must be state stored for the generator to be able to generate the next number in that sequence. The state is updated each time using some part of the output from the previous step.

Seeding explicitly initialises this state. A 'seed' is a starting point, from which something grows. In this case, a sequence of numbers.

This can be used either to always generate the same sequence (by using a known constant seed), which is useful for having deterministic behaviour. This is good for debugging, for some network applications, cryptography, etc.

Or, in situations where you want the behaviour to be unpredictable (always different each time you run a program, a card game perhaps), you can seed with a number likely to be continually changing, such as time.

The 'randomness' of the sequence does not depend on the seed chosen, though it does depend on not reseeding the sequence.

# Classroom task 2, question 2

What is a seed in relation to a random number generation algorithm and why is computer time used to create this seed more often than not?

I read that ***seeds*** are used to initialize random number generators. But seems like the randomness of the seed doesn't matter much for getting good randomness from the generator. So I want to understand what is a ***seed*** actually? Why is it called so? And lastly why ***time*** in a computer system is used to generate such seeds?

# Classroom task 2, question 2

1 Answer

Active | Oldest | Votes

10

A pseudo-random number generator produces a sequence of numbers. It isn't truly random, but generally a mathematical calculation which produces an output that matches some desirable distribution, and without obvious patterns. In order to produce such a sequence, there must be *state* stored for the generator to be able to generate the next number in that sequence. The state is updated each time using some part of the output from the previous step.

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   }
}
```

# Classroom task 2, question 3


6 Answers

Active | Oldest | Votes

8

42 is the seed, as the very same Javadoc says. So, what is a seed? A *random* number is seldom **truly** random - often it's a *pseudo-random* instead. This means it's generated from a function, which is said PRNG (pseudo random number genrator). Being generated from a function, in turn, means that the output is not random anymore, since it's predictable!

However, depending on your needs, this pseudo-randomness may be enough - I said *enough* because generating random bit is **expensive**, and I'm not talking about time or memory, but about money (see this link on wikipedia). So, for example, if you need a random value to place enemies in your game, a pseudo-random number is ok - but if your are building security-related software, you want to use a true random number, or at least a cryptographically secure PRNG.

How can we describe a PRNG, like the one used in `Math.random()`? It's a function, initialized with a *seed* S that returns an array of values A. Note that, for each integer S, is defined one and only one array A. For example (values are not actual):

```
                first call     second call     third call
seed: 14329            .18             .82             .5
seed:  3989             .7             .02            .93
```

So you seed you PRNG with some known value when you want its result to be predictable - for example for testing purposes or to ensure that, each time you run level 1 in your game, the enemies are always placed in the same (pseudo) random places - otherwise you don't need to explicitely pass a seed.

# Summary

- Social media is becoming more important also for professional networking and building reputation
  - Professional profile should be less casual than personal profile
  - Social media can be used for promoting own work, writing commentaries or sharing interesting articles
  - Special websites/platforms for sharing resources, asking advice etc.
  - Some consideration needed: careless postings can be harmful for professional reputation