SQmag

THE VOICE OF SOFTWARE QUALITY

WOMEN IN IT

A MARKET TO BE EXPLORED

SMART WOMEN WORK (AND LIVE) SMART

Being a woman in this ball game adds an extra flavor to the challenges, especially if you have a baby, toddlers, or teens to look after while running a household.

Corné Kruger

WHAT IS YOUR PERCEPTION OF THESE CHALLENGES FACED?

Even with the achievements and significant changes within the technology sector, women still face many difficulties when they decide to pursue their careers in this sector.

Amanda Logue Interview

BUSINESS USERS. KEY ROLE IN ACCEPTANCE TESTING

Apart from IT professionals, it is increasingly important that business users get involved. Their participation as well as their commitment partly define a project's success from its early stages.

Alfonsina Morgavi

AUDIT AND ASSESSMENT AND THEIR ROLE IN TEST IMPROVEMENT PROCESS

"If the test processes at your organization are to improve, you're probably the one who will make that happen."

Ramella Basenko

COME TO MEET THE WOMEN IN IT

Leaving the United States, crossing the Atlantic until France and soon after arriving in Mauritius.

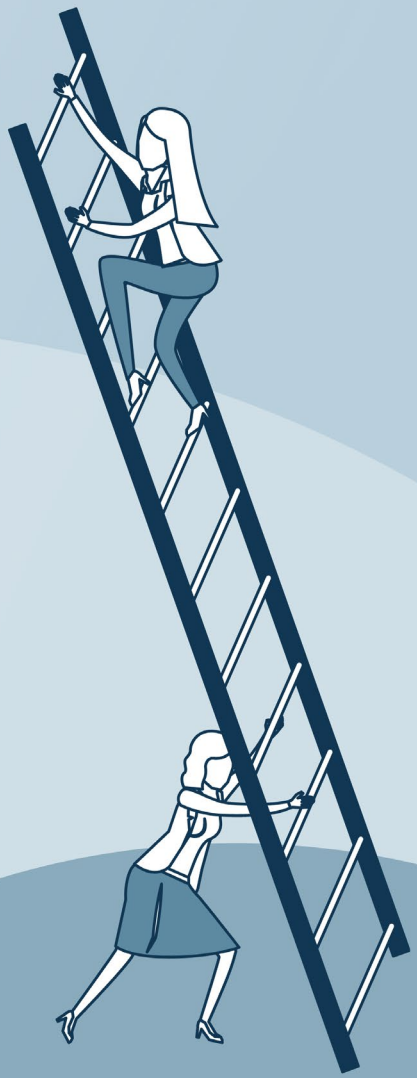
X-Ray Jennifer Smith, Nirmala Saneechur, Sophie Cottin

11

MAY 2022

Reach the Top with ISTQB® Expert Level!

Special pricing initiative from ISTQB® available! Limited time offers available from our partner Exam Providers!



Important update:

From 1st April 2022 to 31st March 2023 a special initiative is running with ISTQB® whereby Expert Level exam prices have been lowered! A4Q has the relevant exams available and our Exam Provider Partners are participating!

The exams are available through iSQI & GASQ.

ISTQB® International Software Testing Qualifications Board

A4Q Alliance for Qualification

#11

Stephan Goericke
CEO, International Software Quality Institute

DEAR READERS,

Did you know that companies that focus on diversity and inclusion perform better, have more engaged employees, and retain their workforce more successfully? Diversity is an important resource for creativity and innovation in companies. Businesses that bring together different genders, talents and levels of experience can find this a real asset.

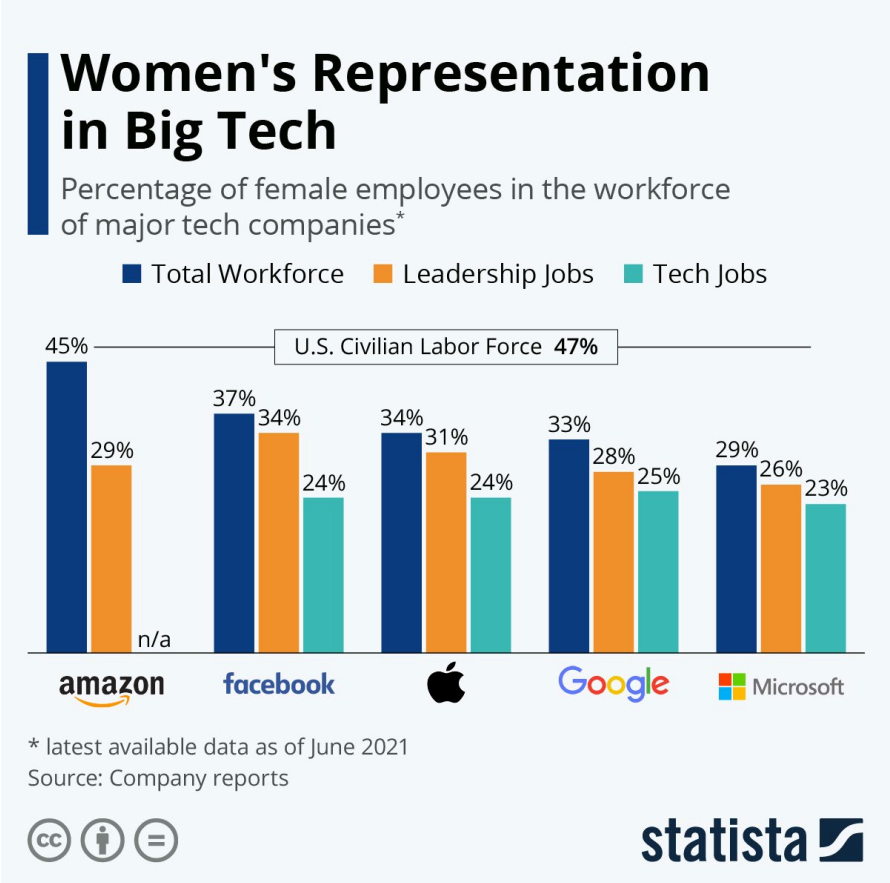
We are glad that over the years more and more women have found their way into the tech industry. However, we are aware of the problem that women are still underrepresented in the IT sector. We would like to do something about this and make a small contribution with this issue to inspire more women to choose a career in IT.

This issue of our SQ-mag is dedicated to all the inspiring women in IT and all those who want to join the IT profession in the future. We talk to women from the testing industry, present their career paths and talk about how the working environment should be designed to make it attractive for more women. You will also find interesting articles on the topics of audit and assessment and user acceptance testing, and last but not least, you will learn how women work (and live) smart!

I hope you enjoy reading this issue.

Yours sincerely,

CONTENT

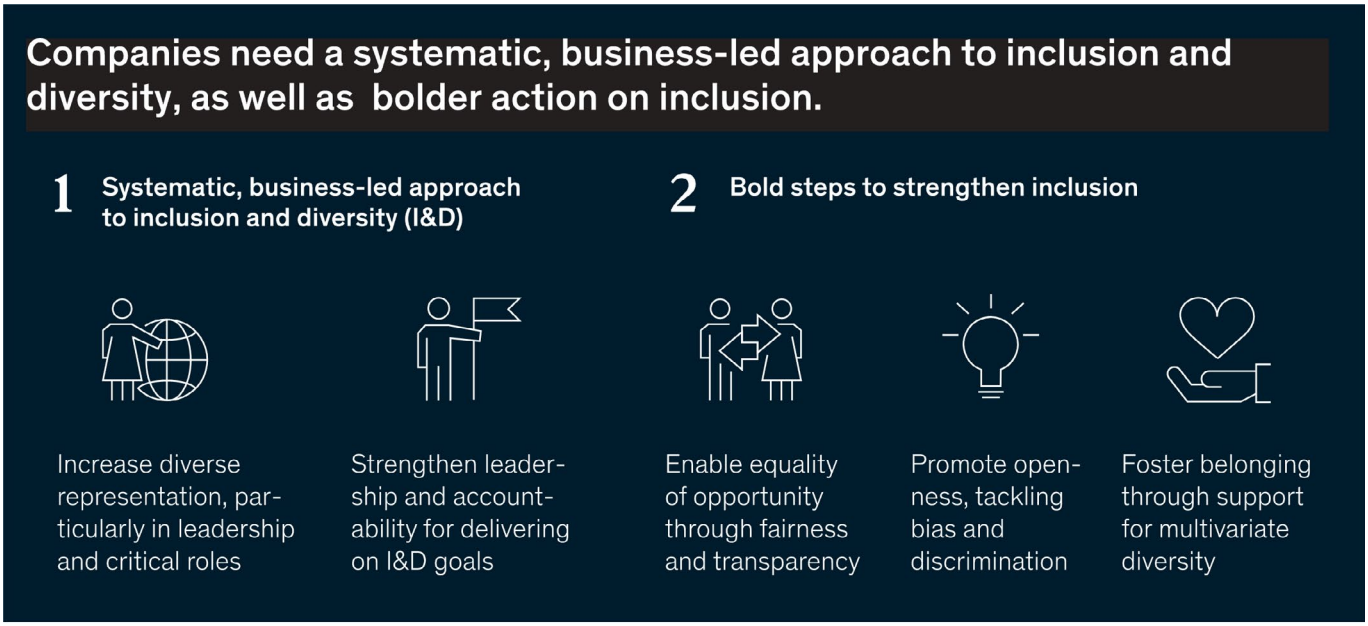


https://www.statista.com/chart/4467/female-employees-at-tech-companies/

As our chart, based on self-reported company figures, indicates, female employees make up between 29 percent (Microsoft) and 45 percent (Amazon) of the total workforce at America's largest tech companies, the so-called GAFAM group. Looking at actual tech jobs, that percentage drops much lower, as women take up fewer than 1 in 4 technical roles at each of the companies reporting such a figure (Amazon does not).

In terms of leadership positions, the status of women in the technology sector, as represented by its most prominent (and valuable) companies in our chart, is roughly on par with the rest of the economy. According to the lastest available data, women hold 26,5 percent of executive, senio-level and management positions in S & P 500 companies - a percentage many tech companies match or exceed, but one that is still far from parity.

WINNING THROUGH INCLUSION AND DIVERSITY: TAKING BOLD ACTION



McKinsey & Company

https://www.mckinsey.com/featured-insights/diversity-and-inclusion/diversity-wins-how-inclusion-matters

X - RAY

Jennifer Smith

1 Who is Jennifer Smith as a person?

I am generally quiet and happy to listen to interesting stories from others. I believe my interest in people has led me into the user experience field. I have five exceptional children who have taught me patience and tolerance which has come in handy with my business interactions. I have a fine arts background with a focus on graphic design and hope to retire near the ocean some day to paint mermaids. For now, I am the oldest candidate in a Human Factors master's program, because it is never too late to learn.

2 Who is Jennifer Smith in the Tech World?

Jennifer is a UX design professional who understands the limitations and benefits of software tools. Software is used to complete a vision. When designing interactive experiences I think less about the technology, and more about goals users must reach. I try to create unique and successful interactions and experiences by sketching and iterating. Using this method, I have designed websites, mobile apps, and other iOT (Internet of things). I also consult and run classes through the company I co-founded, American Graphics Institute.

3 What motivated you to work in your field?

I always wanted to be a designer and worked my way up to becoming an art director at an advertising agency. I then discovered UX design, which is a combination of science (research) and creative design. UX Design is the perfect field for a creative professional who enjoys creating aesthetically pleasing solutions that make less work for users.

4 Please, leave a message for women who want to enter the technology area.

Don't become overwhelmed thinking about technology itself, think about what you want to accomplish and how you can use technology as a tool to reach your goal. If you are excited or passionate about where you want to be, the ride will be fun and exciting. Your job should not be work.

Jennifer Smith

Vice President, UX lead, author American Graphics Insitute

USA

X - RAY

Sophie Cottin

1 Who is Sophie Cottin as a person?

I am a woman, a daughter, a sister, a wife, a mother and an agile coach. I am empathetic, hyper sensitive, organized, rigorous with a manic tendency.

2 Who is Sophie Cottin in the Tech World?

I started my professional career as a Research & Development Engineer. Then I evolved as a project manager. As I really enjoyed my exchanges with clients, I naturally oriented myself towards a role of business analyst. Going in search of the most suitable solutions for users was a fulfilling challenge for me. How to make a person's day more pleasant thanks to Digital, that was my leitmotif.

One day, a new CIO arrived and imposed agility Agile on us as a new method without documents, without specifications, without functional analysies, without business analysist...without me? Hopefully not! The Quality Manager commissioned me to understand this the concept of Aagile and to set up a new process including discreet documentationin this Agile, so that each team can manage its specifications and tests. So that our products remain of high quality while being delivered more regularly.

3 What motivated you to work in your field?

That's how I fell into it. I attended training, conferences, meet-ups, I discussed with many people, I discovered this world of sharing, transparency and exchanges. And I loved it. Since then, my hobby has been to talk about Agile, to explain the importance of delivering value to users on a regular basis, the importance of getting their feedback as they go along to better adapt to their needs, importance of questioning the way we work and improving slowly but surely, the importance of working together in a collaborative way with a common goal.

4 Please, leave a message for women who want to enter the technology area.

During my studies, we were 4 women out of a class of 120 people. Today, I have the chance to work daily with a mixed team. Even if the rate of women is increasing in the Tech teams, there are still a lot missing for us to be on an equal footing. So join us! We work on exciting projects that bring a lot of value to end users. And you need to know that there are a lot of different jobs in Tech that require important human values, we are not only in front of the computer.

↗

Sophie Cottin

Agile Coach

France

X - RAY Nirmala Devi Saneechur

Nirmala Devi Saneechur

Test Manager
iQera IO

Mauritius

1 Who is Nirmala Saneechur as a person?

I love reading and spending time with my dogs. I give generously to charities. I am passionate about my team and the work we do. Honesty and fairness are very important to me in everything I do. I am someone who will always find a way to adapt even when the situation makes me angry or upset. My moto is everything that happens, happens for a reason. You learn from it, and you grow.

2 Who is Nirmala Saneechur in the Tech World?

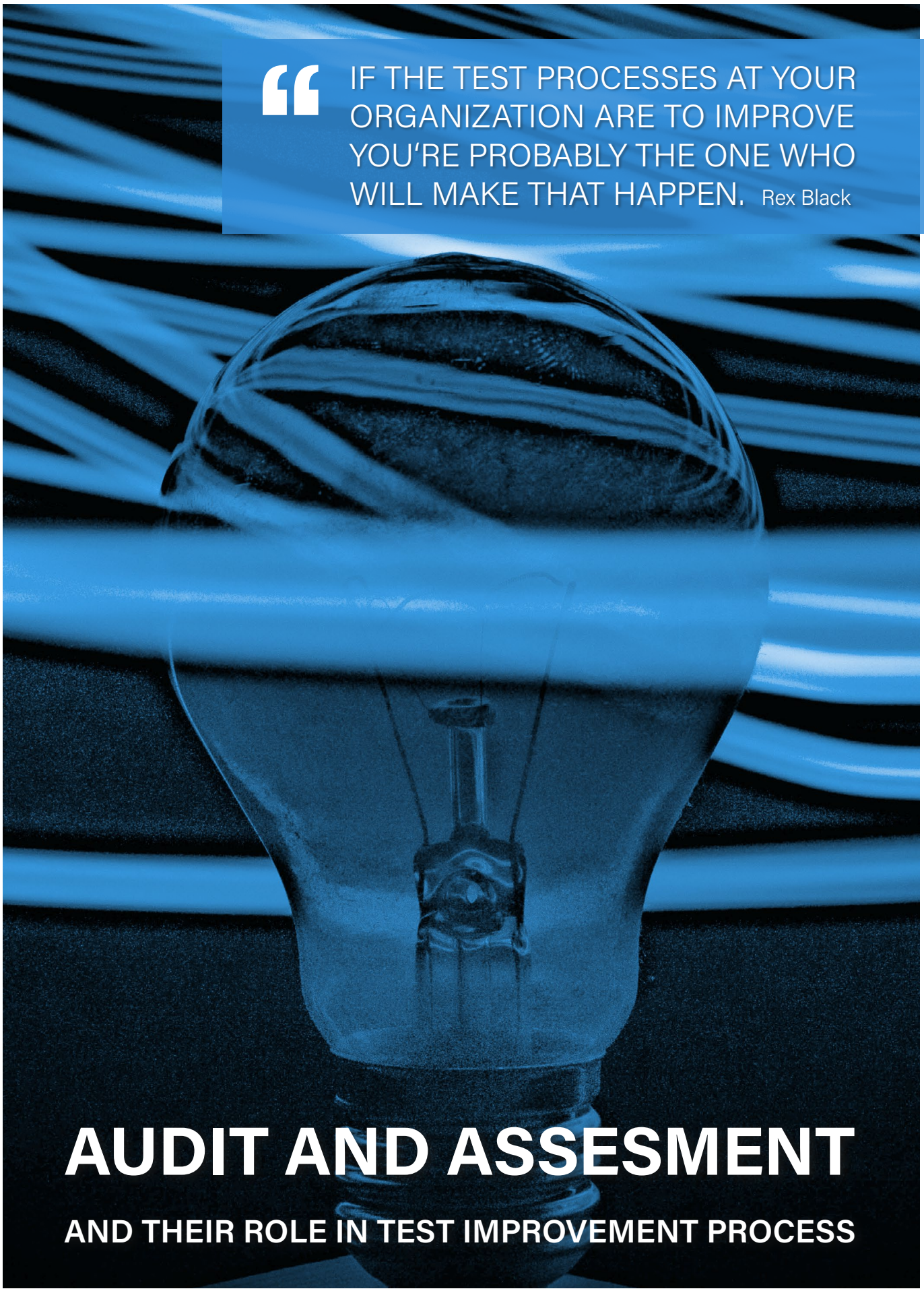
I am the Test Manager at iQera IO, a French company in the debt collection industry. I have been in the software testing field since 2006 when I joined TNT Express ICS as a trainee. I have been involved in major phases of testing – component testing through to UAT. I have had the opportunity to lead testing teams for 2 major companies and I believe that my contributions helped to improve the quality of the software that we tested. Today I manage a team of about 20 software testing professionals with various degrees of experience and personalities. I just enjoy working in that environment!

3 What motivated you to work in your field?

My start was an accident. I was working as an intern at an organisation that had me recording user acceptance data. When I went for an interview at TNT Express, they asked me what I was doing and upon hearing that I was working on UAT, they asked if I would be interested in joining their testing team. I said yes and as they say, the rest is history. Testing a software allowed me to see the various parts of the business. I am curious by nature and working as a test analyst allowed me to keep asking questions, to keep looking for issues. At the start of my career, I was lucky in the mentors I had. Be it in the test team or the dev team with whom we worked, they never failed to assist and challenge me. I had to know about the architecture, I had to understand the business; I had to understand the database… so many opportunities to learn! So many opportunities to work within a team. In addition, when you see someone using an application that you tested, I can't explain the satisfaction and joy it brings! Quality, processes, having to be flexible and adaptable, asking questions, teamwork are some of the things that have motivated me throughout my career.

4 Please, leave a message for women who want to enter the technology area.

I have been very lucky throughout my career to have had women mentors. I would like to pay that forward as much as I can. Men or women, it makes no difference as long as you have a passion for what you do – be it development, testing or any other role within the technology word. It can get difficult sometimes with all the responsibilities that you may have, but don't give up! Seek help when required. Don't be afraid to ask questions. Be assertive, be ready to keep learning, be adaptable!



> IF THE TEST PROCESSES AT YOUR ORGANIZATION ARE TO IMPROVE YOU'RE PROBABLY THE ONE WHO WILL MAKE THAT HAPPEN. Rex Black

AUDIT AND ASSESMENT

AND THEIR ROLE IN TEST IMPROVEMENT PROCESS

Background

I am a QA Team Leader with seven years of experience, five years of which involved QA team management. I have an ISTQB Certified Tester Full Advanced Level certificate, and I have experience in managing QA-teams (manual, automation, hybrid) of various sizes, including distributed teams, where participants were in different countries. During preparation for certification exams, I became interested in the topic of audits and test process improvement and began to apply theoretical knowledge in practice.

This article will be interesting for those who have already thought about process audits on the project, started collecting metrics or are just interested in it - QA Managers, QA Leads, PMs and even executive persons. In this article, we will consider how an audit differs from an assessment, and why and how often to conduct an audit. In addition, I will provide an example of using one of the industry-standard test process improvement models.

I am writing this article because I want to share my experience and theoretical knowledge, and because I spoke on this topic at a webinar for the WWC (Women Who Code) organization in Ukraine. I think that for the sake of better perception of the material, it is better to read than to hear, and interesting questions from the audience complimented my story.

Audit vs assessment - is there a difference?

I became acquainted with the topic of audits and test process improvement models during preparation for the ISTQB® Advanced Level Test Manager exam. Later, I was asked to jointly work on one of the company's projects to evaluate their process and suggest solutions.

Our company needed a well-trained and experienced person who could convince the customer that changes must be made to prevent even greater process problems. It was then that I returned to the books and began to study the topic of audits and models for improving testing processes in more detail.

First, I propose to consider what is audit and evaluation (audit and assessment). On the one hand, this issue is controversial, but on the other - everything is quite simple. The two concepts are closely related but different.

When we talk about assessment, we mean getting up-to-date information about the project and identify its strengths and weaknesses and what can be improved. In addition, we will receive a qualitative assessment, expressed in numbers (for example, „Documentation"- 3 out of 5).

The audit is also based on evaluation, but in terms of compliance with certain standards and documents (such as external audits to obtain ISO certificates).

There are three types of audits exist:

1. **A first-party audit is performed within an organization to measure its strengths and weaknesses against its procedures or methods and/or against external standards adopted by (voluntary) or imposed on (mandatory) the organization. A first-party audit is an internal audit conducted by auditors employed by the organization being audited, but who have no vested interest in the audit results of the area being audited.**

2. **A second-party audit is an external audit performed on a supplier by a customer or by a contracted organization on behalf of a customer. A contract is in place, and the goods or services are being, or will be, delivered. Second-party audits are subject to the rules of contract law, as they are providing contractual direction from the customer to the supplier. Second-party audits tend to be more formal than first-party audits because audit results could influence the customer's purchasing decisions.**

3. **A third-party audit is performed by an audit organization independent of the customer-supplier relationship and is free of any conflict of interest. The independence of the audit organization is a key component of a third-party audit. Third-party audits may result in certification, registration, recognition, an award, license approval, a citation, a fine, or a penalty issued by the third-party organization or an interested party.**

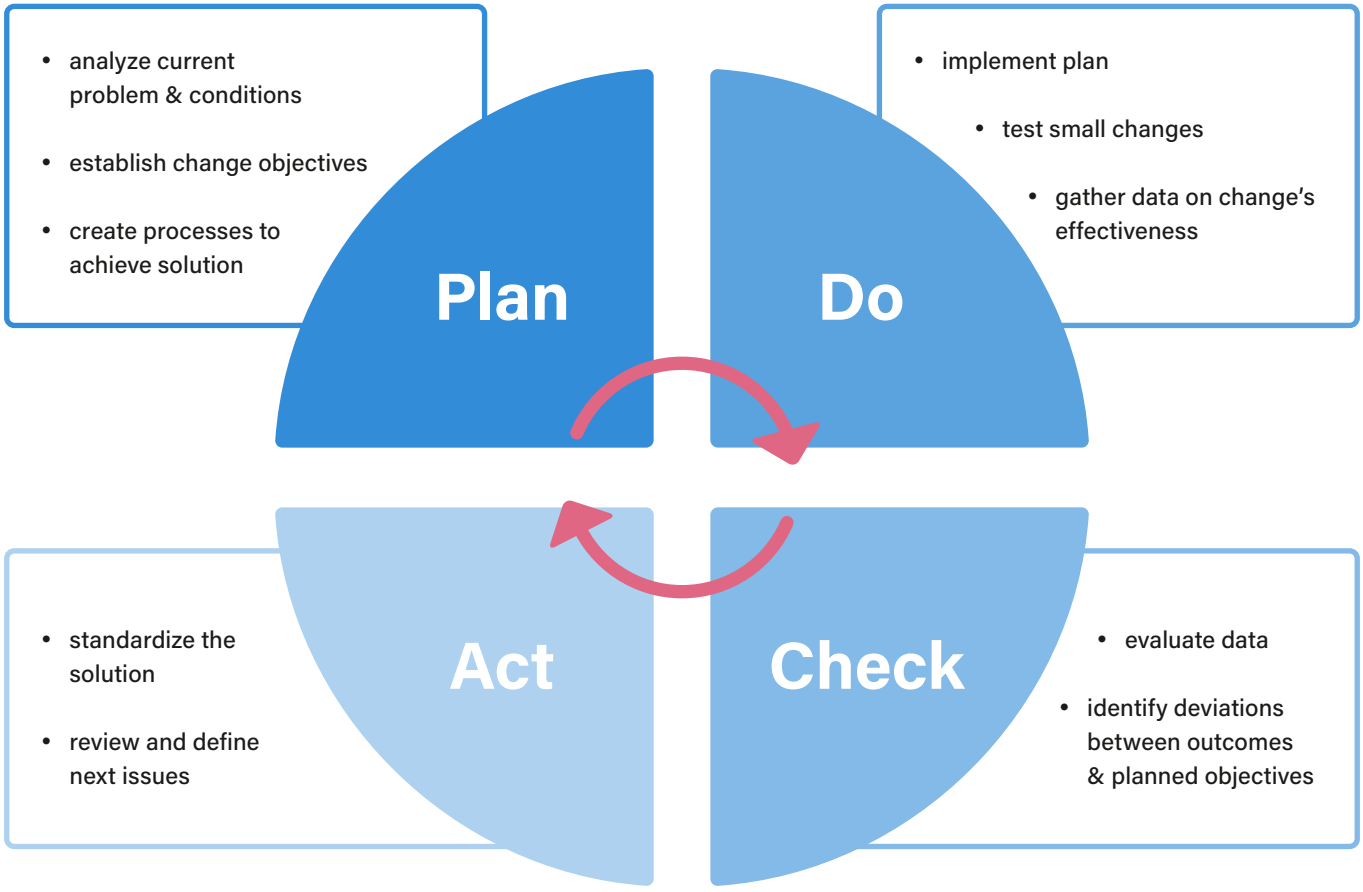
I believe that you do not name it as a process, but it is useful to give. That is why I will continue to operate with both concepts: audit and assessment.

Why Test process audit is needed and how often to conduct it

So when should you think about auditing?

- You do not have clear information about software quality or bottlenecks.
- The workload on the project is increasing, but the current quality control process does not allow it to be scaled.
- With the existing quality control process, you cannot switch to a different development methodology, apply a different approach to infrastructure management, or make other changes.
- You need to pass product/process certification, and you want to make sure that the quality control process meets the requirements.

It is important to remember that to achieve a stable positive result,result; the audit of processes must become continuous. This means that from time to time the whole range of actions must be repeated (plan an audit, conduct it, check the results and implement changes in accordance with the results and the desired effect). To do this, you can use the so-called Deming cycle, also called PDCA Model.



Continuous improvement using the PLAN, Do, Check, Act (PDCA) cycle

Critical components of the testing process

Now that we have understood assessment, audit and its types, it is time to determine which of the test processes are critical. The concept of „critical test processes" (Critical Testing Processes) is described in the book of the same name by Rex Black and covers the processes that are subject to evaluation and subsequent changes:

- Testing
- Establishing context
- Quality risk analysis
- Test estimation
- Planning (Test planning)
- Test team development
- Test system development
- Release management (Test release management)
- Test execution
- Creating bug reports (Bug reporting)
- Results reporting
- Change management

You can read more about these processes in Rex Black's book, but we are currently interested in common models for improving testing processes that can serve as a basis for audits. The ISTQB® Advanced Test Manager exam book describes four industry-standard test process improvement models. I chose one and used it as a basis for future audits. Perhaps another model is better suited for your projects, so I suggest you briefly read the different approaches.

Test Process Improvement models

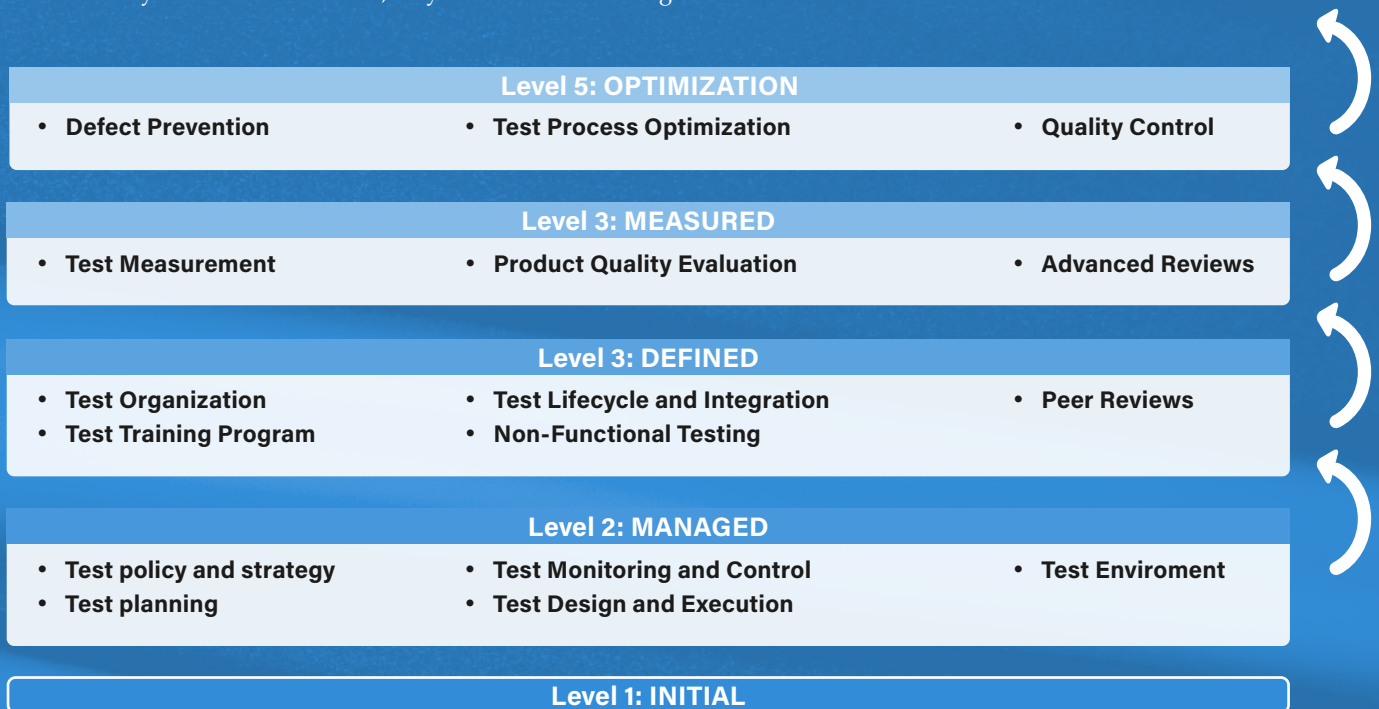
TPI Next (Test Process Improvement Next). In my opinion, the most complex and difficult to understand model. The evaluation offers 16 key processes and several levels of maturity for each. There is also a special matrix to make proper evaluation. This model is more suitable for separated QA teams and focuses on a parallel increase in maturity for all key indicators.

In my experience, it will be impossible to get a transparent, clear, and simple summary in a short time. Of course, if we have more than 1-2 days to perform such an audit, and it is a project that you work directly with, you can take this model and have good results.

CTP (Critical Testing Processes). This model is more flexible, it does not prescribe anything, unlike other models that expect us to constantly continuously improve in a way with proper consequence of actions. But still, I would like to use something fresher (the booklet Critical Testing Processes is a bit outdated) and clearer for people who are likely to hear for the first time about the existence of similar models in general.

STEP (Systematic Test and Evaluation Process). All the changes that this model proposes to implement can take place in any order. It has no complex matrices. But one of the principles is the existence of clear, formalized requirements. That is, for a process where there are none, this model is probably not suitable.

TMMi (Test Maturity Model Integration). The model was developed by the Illinois Institute of Technology based on CMM (Capability Maturity Model). Its purpose is to provide a basis for assessing the maturity of testing processes. And thus increase the level of maturity. TMMi has five levels; they are shown in the diagram:



Thus, typical process areas are divided into groups, each of which has goals (Specific Goals) and means to achieve them (Specific Practices). So, to use this model, we need to assess the means to achieve the goals within a particular project. Of course, this model has its drawbacks. The main one is toPerhaps one of the challenges of this model is the need to create a lot of documents to move to the next level, if they are not already within the project.

An example of practical use of the industry model to improve the TMMi test process

I will not describe the chosen model in detail, because the official site offers links to documentation and there are already some articles on that in the global network. I just want to share my own example of using the model during a process audit on a project where I did not work directly, but was invited as an independent expert

So how did I apply the theoretical knowledge about this model:

- First, I had to assess the level of the project according to the levels of the model.
- After receiving a reasonable result, provide recommendations for the transition to the next level.

Since I was not working on the project, I had to create a list of questions (they may be different, because the model does not require a specific list) and conduct interviews with colleagues who were involved in it to do a survey. The questions mostly concerned processes, documentation, and so on. Then I added unanswered questions (because this could provoke a biased attitude towards my colleagues on the part of the client if they suddenly disagreed with their answers) to the final document, which was then presented to the client.

Then I suggested some steps to take the project to the next level. Formed a separate document for presentation to the customer, which contained the following information:

- A brief overview of the model, levels, and links to official documentation for this model.
- A description of the audit of who was involved in the survey, as well as a list of questions to be answered.
- Conclusion on the current level of the project and recommendations for the next transition. Recorded the benefits for the project and the customer after applying the necessary changes.

This is useful because such attempts do not take much time, give an independent assessment from colleagues, because often we do not notice the little things that can affect the work, product quality and customer satisfaction.

Useful links

1. *Rex Black's book Critical Testing Process.*
2. *ISTQB Advanced level Test Manager preparation book, where there is a lot of information about process improvement models, as well as comparative analysis.*
3. *Official TMMi website, where you can find links to the documentation.*
4. *Example of a survey based on TMMi level 2 to 5.*

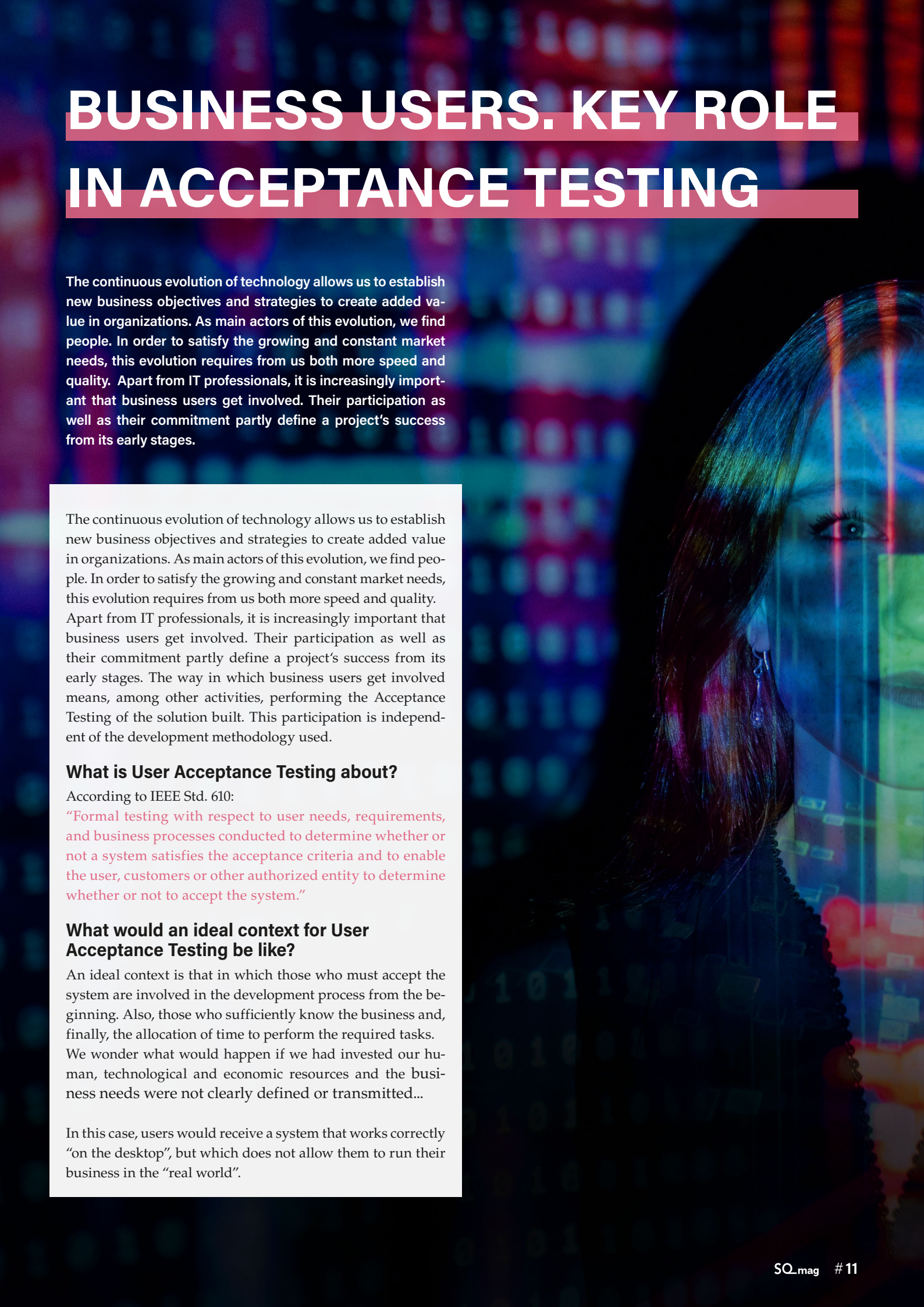
Ramella Basenko
is a Lead QA Engineer at AgileEngine, has 8 years of experience in the QA area. In her daily work mainly focuses on process improvements and project transformations as well as team management and career growth of QA professionals within the company.

ISTQB Full Advanced level certificate holder. Has degrees in German philology, Business, and Administration. Speaker at conferences and webinars in the field of software quality and certification of QA specialists.

Ukraine

BUSINESS USERS. KEY ROLE IN ACCEPTANCE TESTING

The continuous evolution of technology allows us to establish new business objectives and strategies to create added value in organizations. As main actors of this evolution, we find people. In order to satisfy the growing and constant market needs, this evolution requires from us both more speed and quality. Apart from IT professionals, it is increasingly important that business users get involved. Their participation as well as their commitment partly define a project's success from its early stages.



The continuous evolution of technology allows us to establish new business objectives and strategies to create added value in organizations. As main actors of this evolution, we find people. In order to satisfy the growing and constant market needs, this evolution requires from us both more speed and quality. Apart from IT professionals, it is increasingly important that business users get involved. Their participation as well as their commitment partly define a project's success from its early stages. The way in which business users get involved means, among other activities, performing the Acceptance Testing of the solution built. This participation is independent of the development methodology used.

What is User Acceptance Testing about?

According to IEEE Std. 610:

"Formal testing with respect to user needs, requirements, and business processes conducted to determine whether or not a system satisfies the acceptance criteria and to enable the user, customers or other authorized entity to determine whether or not to accept the system."

What would an ideal context for User Acceptance Testing be like?

An ideal context is that in which those who must accept the system are involved in the development process from the beginning. Also, those who sufficiently know the business and, finally, the allocation of time to perform the required tasks. We wonder what would happen if we had invested our human, technological and economic resources and the business needs were not clearly defined or transmitted...

In this case, users would receive a system that works correctly "on the desktop", but which does not allow them to run their business in the "real world".

Overall context

The expectation for a new technical solution is very high. "Clients" generally expect the software to speed up their day-to-day tasks. One of the most serious risks in software development is to fail due to not having developed the right product. The right product is developed by departing from the requirements that result from the information business users provide when they "tell us what they need and/or want."

Our IT task is making their requirements visible. We must adapt the IT support to their business. It is in the Acceptance Testing where the user validates if the technical solution developed allows them to run their business (under the previously defined conditions).

Once at the Acceptance Testing stage, we assume that the software was revised by a testing technical team which did the following:

- all the interface testing
- went through all the logical paths of the code
- validated that it is possible to navigate the entire product,
- that all the inputs and outputs of the screens work correctly and in order,
- that the product faithfully corresponds to its definition

Requirements definition

Some industry data indicate that a significant proportion of the problem at this stage is related to the lack of business participation, ambiguous definitions, and conflicts between requirements, among others. We draw from the premise that 'requirements definition' could mean different concepts for different actors. The parties involved must previously agree on the level of definition. At this stage, business user commitment and intervention are vital. It has been demonstrated by some experiences in the industry that, given the limited time allocated for this task, part of the necessary definitions has been left in charge of development, and that we "have relied on telepathy." This can result in expensive reworks and delays in connection to previously agreed deadlines.

We wonder what would happen if the software is fit for purpose, but:

- It doesn't perfectly fit the business processes.
- Makes processes more complex, difficult, or extensive.
- Makes it necessary to define additional processes, rendering some old processes obsolete.

Who defines acceptance criteria?

It is business users who must define acceptance criteria. This information should be documented and agreed upon from the beginning, in such a way that the required attributes are "born" together with the product instead of being inserted afterwards. All that is not somehow made explicit is likely not to be present in the final product.

When it comes to defining the acceptance criteria of a new product, it is interesting to examine similar applications operating. This means making use of a product that can provide us with parameters to define acceptance criteria. It is also about not creating false expectations. Not all the functionalities of an application are critical. What is important is to establish some scale of values to prioritize.

When defining acceptance criteria, it is convenient to evaluate:

- How critical will this system be for the organization?
- What functionalities are the most critical ones for the business purpose?
- What functionalities are the most visible ones for the User?
- What functionalities have the greatest impact on security?
- What functionalities have the most significant financial impact?
- What aspects of the application are the most important ones for the business?
- What aspects of previous or similar projects caused problems?
- What aspects of previous or similar projects caused more maintenance expenses?
- What kind of problems would cause the most unfavorable publicity?
- What kind of problems would cause most of Customer complaints?
- What is the cost of a system failure?
- What critical decisions are made based on the information the system provides?

Testing Management

It is necessary to identify all the tasks to be carried out at this stage and then define:

- Who will perform each task?
- When it will be performed?
- For what purpose?
- How much time each of the assigned tasks will take?

It is important to consider the user's time, since -generally- apart from performing the Acceptance Testing they must also carry out their everyday tasks. A document with a brief description of how to perform the tasks assigned during the Acceptance Testing would be useful in terms of the definition of the time allocated to carry them out. In other words, they will not need to investigate how to do their tasks.

It is not all the same

Each part of the system may have different acceptance criteria. For example:

- online transactions used in the presence of a Client generally require a high level of performance,
- a batch process that is executed at night,
- or an online process for internal use that is only occasionally executed.

Suppose our application works with a customized base product. This would require defining whether or not to include that product in the testing. Another case would be that our application has a security module which -by organization policy- is only tested by the security area team, or by audit.

When should software acceptance be a contractual issue?

If the product is developed by an organization with a (traditional) software production methodology that includes the stages of Unit Testing, Integration Testing, System Testing, etc. we would then be facing a testing stage where we will only focus on 'the business' and how it operates. We assume that the software must have been previously debugged and stabilized.

On the contrary, if this is the only testing that the application will have, the process will be more complex and difficult. The probability of being confronted with problems that we should not find at this stage is very high. If the software was developed under contract, it is the Client the one who must perform the Acceptance Testing, considering what was previously agreed for that product.

Results Documentation

Each development methodology has its own recipe for documenting or not the testing results. However, recording the failures found during the testing constitutes an important source of knowledge for an organization or development team to identify what is wrong and what must be improved. From the analysis of the registered failures, it is possible to obtain a common denominator that could result in the definition of new development standards.

Some aspects to consider about the business user community

- The users that have spent more time in the organization are not necessarily the ones who know the business process better, nor are they the most willing to collaborate in the Acceptance Testing process.
- Many users are not aware of how much they know about the entire business because only the input and output of the tasks they perform are involved.
- On many occasions, they do not know how to convey their knowledge. We should remember that, somehow, we speak different languages.
- A user that feels directly or indirectly harmed by: The appearance of a new application. The changes made to an already existing one. If the user's task becomes more complex or extensive, the user will not collaborate much.
- Regarding the training required, we must train users in the tools that will be used during the testing process.
- The time required for this training must be included in the project deadlines.
- It is important to consider if the automation of some processes is planned and the user is responsible for its execution. It must also be part of the training.

Brief final conclusion

My intention in this article is to convey how essential the commitment of some of the actors involved in the development process is. I also want to highlight the role of the business user as an essential and indispensable actor for the fulfillment of the objectives to achieve.

Alfonsina Morgavi

is partner at QActions System SRL and Director of the Quality Business Unit. For more than 25 years, she has been exclusively dedicated to software quality assurance and quality control. She is the representative of Argentina in HASTQB (Hispanic America Software Testing Qualifications Board.

She is a frequent speaker in national and international events and has written several articles about the specialty. She actively promotes the professionalization of the activity and ISTQB certifications. She also promotes the use of structured techniques and effective tools to achieve maturity in functional, automation, performance and security testing. For more than 25 years, she has trained many testing teams, not only in Argentina but also in other countries in the region. She has created and organized an important number of productive testing teams, for continuous improvement of their technical skills.

Argentinia

AMANDA LOGUE

Senior Test Lead at Atlantic Lottery

Interview

Who is Amanda as a person? How do you define who you are and what attributes connect you to your purpose?

AL: My purpose is to be a positive, organized, independent role model to my 2 daughters. My motivation and goal oriented traits have helped me provide a stable life for my family. My positive outgoing traits create a happy adventurous lifestyle within my home and within my team at work.

Who is Amanda in the Tech world?

AL: Title wise I am the Senior Test Lead at Atlantic Lottery, the Chair of the TBOK Working Group for the ISTQB, the Director of Marketing for the CSTB and the co-author of the Gambling Industry Tester Syllabus. Reputation wise I am a respected, positive valuable member in the Software Testing community.

> “I HAVE ALWAYS BEEN SOMEONE WHO LIKES TO LEARN, THE MORE KNOWLEDGE I HAVE THE MORE SECURE I FEEL.

What motivated you to work in your field?

AL: It was luck. I had graduated high school and went to university because that is what you are supposed to do but I really had no idea what I wanted to do. I had always been a strong math student and a friend of mine was taking a networking course so I went to check it out then I stumbled across a computer programming course so I enrolled.

Even with the achievements and significant changes within the technology sector, women still face many difficulties when they decide to pursue their careers in this sector. What is your perception of these challenges faced?

AL: In Atlantic Canada there has been a shift the past decade. Women are just as prominent in tech companies as men. Typically our roles are more in management, project management, business analyst and of course software testing. Women developers are common and very well respected.

How do you keep your technology skills current?

AL: This is a tough question because I actually do not know if I am current with technology. I do feel confident that I am current with the technology within my organization. We have a fantastic team and we are great at sharing knowledge. Also thankfully we live in a world where everything you want to learn about is online and I leverage those resources as well.

What strengths do you think are most important in a tech and leader positions?

AL: One of the major skills that is needed for someone in tech is to be open to change. Everything changes in the tech world that could be your tools, technologies, priorities, approach, teams the list goes on. The only thing that is known 100% is that things will change. As a leader I find it is important to be organized, positive and open. Obviously having a few ISTQB certifications helps.

Amanda, how did you start to work in the Tech and how have been your journey until now? What do you expect for the future?

AL: I started out as a computer programmer who turned into a Software Tester. The company I was working for was in the process of starting their Quality Assurance team and I was only a mediocre developer so I thought I would try something new. From there my career took off.

What would you like to change in this area? What do you think would help to make the way for women equal?

AL: I think what will make women equal in the workforce is for them to have an equal partner at home. As women we often have mommy guilt and feel like we need to do it all. An equal partner at home would provide us the guilt free ability and flexibility to do such things as attend those evening network events or those weekend board meetings.

You have several certifications in the field. What are your motivations, what is the relationship between certifications and your career development?

AL: I have always been someone who likes to learn, the more knowledge I have the more in secure I feel. If I am interested or if I think I have potential for career growth I will become ISTQB certified for a couple of reasons, as I am learning about the topic I will get an understanding if that is something I think I would enjoy working in and also it looks great to employers to see an employee taking the initiative to continue improving their skills.

Please, leave a message for women who also want to enter in the Technology area. What could you say to inspire more women to become Women in Testing?

AL: If you have an interest try it! There are a lot of opportunities for women in the tech field. Most women are very strong in organization, memorization and muti-tasking these strengths may open leadership opportunities for you.

HAVE YOU SEEN

According to a report by the WORLD Bank, women make up less than 40 % of the global workforce. A report from McKinsey found that diverse companies perform better, hire better talent, have more engaged employees, and retain workers better than companies that do not focus on diversity and inclusion.

Together with **ISTQB® - International Software Testing Qualifications Board,** we are supporting the **#ISTQBWomenInTesting campaign.**

We would like to inspire women in the software industry all over the world to invest in themselves and help to define the road map for the future gender equality.

London, 16.02.2022:
THE UK & Ireland Testing Board (UKITB) and the A4Q - Alliance for Qualification (A4Q) have agreed on a comprehensive cooperation in the qualification of IT professionals across multiple disciplines.

The common goal of this partnership is the development and dissemination of training standards, e.g. in the area of software testing.

Geoff Thompson, chairman of the UKITB, was enthusiastic:
"With this cooperation, we will ensure in the future that the quality of training, for example, according to the ISTQB® standard, will remain at a high level."

The UKITB is one of the leading boards for training SOFTWARE TESTERS and a founding member of the ISTQB.

With ever changing technologies and Moore's Law indicating the speed at which these changes are happening, one can only imagine the volume of software testing that is required and let's consider:

- Over 12.3 billion IoT devices connected globally
- The global AI market is valued at $89 billion
- Just over 3 million Android Apps
- More than 2 million iOS app

This is the exciting world where software testers thrive and tackle daily challenges to deliver the best quality products possible. Add to that the "new norm" that led to the "tele-everything" era with a strong reliance on digital connections and you find yourself walking on a tightrope that connects your work and personal life.

Being a woman in this ball game adds an extra flavor to the challenges, especially if you have a baby, toddlers, or teens to look after while running a household. With software testing on the critical path and the unfair expectations of stakeholders to "test everything", it often puts us in the situation where extra hours are necessary in order to get the test work done.

The beautiful maternal qualities we have inherited such as patience, empathy, being supportive, caring, etc., fits perfectly with our job descriptions as software testers who are looking after software products. This too, often requires you to shift into survival mode, or as I would rather call it a robot mode, where your day consists of working, eating, feeding the family and sleeping.

It is therefore very important that women find the balance between work responsibilities and their family life.

In my career as a software tester (and being a single mom), I have discovered 9 important points that helped me to advance my career in software testing and to ensure that I achieve a fair balance.

The nine checkpoints can be divided into three categories namely:

- Advancing your own professional career
- Improve your work environment
- The glue that holds your family together

Advancing your own professional career

After a long day's work and with the second shift of homework the work at home waiting, there is often no energy left to do something for ourselves. I often see women working hard for many years without attending any training courses or doing a self-study and not a single book on software testing on their bookshelf in sight. This brings us to ...

Knowledge is King (or shall we say Queen)

Software development and testing practices are changing rapidly and so are the endless stream of available tools, best practices, and frameworks. Make it your own responsibility to stay up to date with the latest and greatest testing tools and find ways to improve your approach and techniques to make sure everything not only works but works reliably. Seize every opportunity to gain knowledge, whether it's a brown bag lunch meeting, a formal training course, a book, or a podcast. To become the Queen of Knowledge, you must search for the appropriate source of information. Fortunately, information is ubiquitous. Reading a book or an e-book or listening to podcasts can broaden your software test knowledge incredibly for any topic in which you are interested. The opportunities are endless. If you do not like reading, you can join discussion forums or test conferences.

Dare to get more technical

The IT industry is changing rapidly and is being influenced by DevOps, continuous integration and continuous delivery and agile approaches. Software testers are also afraid that test automation will replace them. Artificial Intelligence is also going to greatly affect the software testing landscape. Many companies expect the software testers to become more technical and learn how to write code or to gain knowledge in areas such as security and performance.

A few years ago, it was good enough to be a manual tester and to be only familiar with the system or the product which was being tested. Research has shown that women are in the minority when it comes to STEM technologies. Women make up 29% of the STEM workforce. The number of women in board positions in STEM-related industries in 2020 was 19.2%. Women make up only 3% of the CEOs of the STEM industry. Often, I hear a mother saying that her child helped her to do this or that on her cell phone or another device. With Generation Z and Gen Alpha's learning speed in technology in our presence and in our homes, this is a good opportunity to learn, because as the saying goes "if you cannot beat them, join them". Set some goals to become more technical and sign up with your child for a Delphi programming course or do an e-learning course about API testing as a starting point.

Get your name out there

Working long hours with the commitment to deliver high quality products deserves recognition. One way to gain international recognition as a software tester is to list your name on the successful candidate register of the International Software Testing Qualifications Board (ISTQB - https://www.istqb.org/). Search for certificate details at http://scr.istqb.org/ .

These certifications cover a portfolio of certifications qualifications that are internationally recognized by 129 countries. that Certification is can be achieved by writing an passing the respective certification exams that is internationally recognized by 129 countries. There are different tiers namely foundation level, advanced level, expert level as well as a specialist category that includes topics like such as performance testing, security testing, AI testing, mobile application testing and much more.

Another benefit of having your name listed on the successful candidate register is that recruitment and IT companies can verify your certifications when you apply for a new position. It gives a company an indication of your level of knowledge to all related topics that is covered in software testing.

Practical experience and proof of sufficient knowledge in the software testing industry is extremely important when applying for a new job and many companies require proof of experience as a prerequisite and as part of a job specification. Just as your driver's license proves your ability to drive legally on a public road, the ISTQB® certifications will be a testament to your ability to follow the best testing practices. Make your studies fun and set a good example for your children by setting up joint study programs. Another benefit is that women in software testing can cultivate the value of learning and education in their children.

Improve your work environment

Software testers are team players, and the project team is as good as the individuals that make up the team. Each member of the team has different roles, knowledge base, focus and different personalities. Team dynamics have an impact on creativity, productivity, and efficiency. The aim should be to cultivate specialist teams.

Keep the lines open

Technology is changing the way we communicate with each other. The face-to-face decline in communication is due to the advancement of new devices and the ease of connectivity. It also disrupts the development of social and interpersonal skills. The transfer of information between the team members about the product being developed also greatly contributes to the successful delivery of the product.

Practicing active communication and active listening will be wonderful for your team, foster collaboration and will make you a very favourable team member.

Another way of communicating can be done through the test metrics and reporting of the test results. The test metrics are incredibly rich in information and can add a great value in the communication not only with the project team but also with the other testing stakeholders.

Let's go do it!

Companies often have employees who are called "the furniture" of the company, who know their work from the inside out with their eyes closed, and do not share their knowledge. This is unfortunate because junior team members can only grow rapidly to become independent team members with

proper mentorship. When you are in the position to mentor a junior team member, experience the joy of sharing your knowledge and empowering that person to contribute to the team's maximum performance.

Continuous improvement

The TMMi framework (https://www.tmmi.org/) provides a 5-level model that enables organizations to implement a structured and controlled test process, increase product quality, improve productivity and shorten lead timelead-time. At level 3, the lessons-learning activity is incorporated into the testing process across the organization.

Project teams should plan lessons learned sessions as part of a project planning. The goal is to identify what worked well and what could be improved, both from a project as well as from a testing point of view. This is an activity that is often carried out only when there is time, or sometimes it is completely omitted from the projects. It is extremely important to continually improve on the testing processes being aligned with the evolving business goals. By encouraging your team to plan enough time for lessons learned sessions, you will soon see the benefit not only for your team but also for your projects and ultimately for the organization.

The glue that holds your family together

Find that balance!

Because of your caring nature as a woman, you will also care about the products that are being developed and that need to be tested. Often, software testers easily work overtime and on weekends that are dangerous to family life. Working from home can cause extra stress as we tend to work longer hours. Strategically plan a hike with your dog or your children at 5pm or make a set arrangement to watch the sunset every day.

Networking

You may need different types of networks, e.g., transport for the kids to school or extracurricular activities, babysitting or maybe just a few girlfriends to drink coffee together. For single moms, this is a double challenge. Find support groups in your area that can help you establish better balance in your daily tasks. Online shopping has become the saviour for many women to refill the pantry, replace the broken microwave and order dinner.

Live in the moment

When was the last time you looked at old photo albums of long-forgotten holidays or special family occasions and birthdays? This is when you realize that some of those moments captured in that picture will never, ever happen again.

Plan that special birthday party, make time to attend a school sports game, and capture those moments in a photo. I remember the time when my firstborn slept on my lap, and I captured that picture of her in my memory knowing it was only temporary that I would take care of her as a baby. I still remember that special moment and it was almost 3 decades ago :-)

Napoleon Hill quoted "Patience, persistence, and perspiration make an unbeatable combination for success". Your circumstances may not improve, but you can always work smarter and overcome the challenges. It's a plan, but a plan is only as good as the effort we put into following it. Small plans will eventually sum up and make a big leap to success. It can take months, maybe years. But if you look back on your journey, you will be able to see how you have reaped the fruits of all your efforts. We all have great potential, and we must seek those opportunities that will help us to fulfil it. I wish you the best of luck and success in your career and future ventures and may you become the woman you are meant to be.

Corné Kruger

is the founder and CEO of Impimpi Technologies, a company that specializes in software testing and quality assurance. Corné is also the main founder and president of the not-for-profit Southern African Software Testing Qualifications Board (SASTQB) , an exam provider for international certifications in Southern Africa. After earning a B.Sc degree, Corné began her career as a high school maths teacher, but soon became involved in programming and systems analysis at major JSE-listed companies in South Africa. She has acted as a consultant for various companies in the mining, medi-cal, financial as well as the research and development industries.

Corné's certifications include ASTQB Mobile Tester, ISTQB Foundation, ISTQB Agile Certified Tester, ISTQB Mobile Application Tester, ISTQB Advanced Test Manager, ISEB Practitioner, IREB Requirements Engineering Foundation, TMMi Professional.

Corné believes in corporate ethics and the promotion of equal rights that include equal employment opportunities for women. Cornè believes that the success of software testing is embedded in establishing good fundamental testing practices based on international standards, effective communication that emphasizes the value of software testing, and the advancement of software testing as a professional career.

Climb 2 the top with A4Q

Effectively managing your career can metaphorically feel like climbing a mountain!

The journey to the peak can be tough and every route will bring different challenges.
Learning and developing new skills can help you on your way to the top.

Choose your path with A4Q and reach your goals!

Visit
alliance4qualification.info
to reach the top.

A4Q Alliance for Qualification

SQ mag #12

COMING OCT 2022

PREVIEW

What´s in the next issue of SQ mag?

PERSPECTIVE. The Software from the perspective of the Developer and the Tester, teamwork and not a competition

Guests feature by Luis Francisco Contreras González and Martin Contreras Romo

Please share your experiences with us and send your article to **contact@sq-mag.com**

PUBLISHER

A4Q Global Services GmbH
Bauerngasse 30
90443 Nümberg
info@a4q.gs

EDITOR

Responsible for Editorial Content:
Stephan Goericke
Editorial team:
Julia Jasper,
Debbie Archer
contact@sq-mag.com
Friedrich-Engels-Str. 24
14473 Potsdam
(Germany)

PHOTO CREDITS

Cover: @ shutterstock
p. 8: @ Nejc Soklic (unsplash)
p. 13 - 15: @ thisisengineering (unsplash)
p. 19: @ OmidArmin (unsplash)

LAYOUT

Format Druck und
Medienservice GmbH
www.arnoldgroup.de

ADVERTISEMENTS

Detailed metrics for the online advertising formats are available. Please send your request to:
contact@sq-mag.com

METRICS

21 cm × 29,7 cm
(DIN A4, 4-color (euro scale))
Live area: 170 mm (B) × 242 mm (H)
E-Paper and PDF-Download on
www.sq-mag.com

A4Q GLOBAL SERVICE
www.a4q.gs

skillsclub

Coming soon

A4Q TESTING SUMMIT

ISTQB International Software Testing Qualifications Board

11 MAY 2022 LIVE FROM DUBLIN

THE FIRST GLOBAL TESTING SUMMIT EDITION LIVE FROM THE ISTQB® GENERAL ASSEMBLY!

20+ presentations | 20+ Top Speakers

All presentations will be streamed LIVE, participation free of charge.

A4QWORLDCONGRESS.COM