# Florida International University Plans for Implementing Civil Discourse Recommendations September 2022

Instructions: For each recommendation listed below, please provide an interim update as to how the university has already implemented the recommendations and draft plans for implementing outstanding recommendations. Plans must identify the key groups/individuals involved, critical milestones, and expected timeline for accomplishing each milestone.

When implementing recommendations regarding the Board's Statement of Free Expression, the statement as it appears in Appendix A of the <u>Board's report</u> on civil discourse should be used at all times. Limit interim update to 1 page per recommendation using font size 11

Recommendation 1: Leadership at each university will operationalize the Board's commitment to open-minded and tolerant civil discourse by promoting, supporting, and regularly evaluating adherence to the principles set forth in the Board's Statement of Free Expression and cultivating a culture of civil discourse in all campus interactions, including academic, administrative, extracurricular, and social dealings.

<u>Recommendation 2:</u> The university's Accountability Plan and Strategic Plan include a specific endorsement of the Board's Statement of Free Expression, as well as a clear expectation for open-minded and tolerant civil discourse throughout the campus community.

Recommendation 3: Leadership of each university board of trustees, faculty senate, and student government annually review and endorse the Board's Statement of Free Expression and commit to the principles of civil discourse." NOTE: The first review should be completed during the 2022-2023 academic year.

Recommendation 4: Each board of trustees conducts a thorough review of current student orientation programs, student codes of conduct, and employee policies and procedures to ensure consistency with the Board of Governors Statement of Free Expression, the principles of free speech and civil discourse, and compliance with section 1004.097, Florida Statutes.

\*Recommendation 5: Beginning in the 2022 presidential evaluation and contract renewal cycle, as a part of a president's evaluation, the Chair of the Board of Governors will consult with the board of trustees chair to review the university's campus free speech climate, including adherence to the principles set forth in the Board's Statement of Free Expression, the occurrence and the resolution of any issues related to the university's compliance with substantiated violations of section 1004.097, Florida Statutes, and the implementation of best practices promoting civil discourse.

Recommendation 6: University academic, student affairs, and administrative leaders review student orientation programming, student codes of conduct, and employee personnel policies and procedures to ensure that they contain clear and unambiguous support for the Board's Statement of Free Expression, and the principles of free speech and civil discourse, and that they are in compliance with section 1004.097, Florida Statutes. NOTE: This recommendation may be included in the plans to implement Recommendation 4 above.

Recommendation 7: Implementing the best practices outlined on pages 6 and 7 of the attached report based on the Board's review of university programs and initiatives that effectively promote and support civil discourse. For each best practice implemented, or to be implemented, include a timeline.

\*Recommendation 5 does not require plans to be submitted to the BOG but is included here for tracking purposes.



#### Plans for Implementing Civil Discourse Recommendations

September 2022

#### **FIU's Preliminary Statement**

As a university that encourages critical thinking and educational discussion, FIU has long embraced and supported open-minded civil discourse and free expression. FIU continuously works toward fostering a culture of diversity and espousing different points of view to encourage differing perspectives that promote effective and expansive learning opportunities.

Recommendation 1: Leadership at each university will operationalize the Board's commitment to open-minded and tolerant civil discourse by promoting, supporting, and regularly evaluating adherence to the principles set forth in the Board's Statement of Free Expression and cultivating a culture of civil discourse in all campus interactions, including academic, administrative, extracurricular, and social dealings.

Prior to the fall 2022 semester, the President created a taskforce with representation from Human Resources, Strategic Communications, Office of the Provost, Office of Faculty Leadership and Success, Office of General Counsel and the Office of Compliance and Integrity. The taskforce was charged with periodic review, making recommendations for implementation, and reporting to administration. The taskforce will set agenda items for the year and will operationalize university-wide communications to various stakeholders through existing groups such as the Chairs Advisory Council, Deans Advisory Council, Human Resources Liaisons, Student Government Association, Faculty Senate, etc. An official university-wide communication from the President highlighting the university's support for and culture of civil discourse will be sent to all students, faculty, and staff annually. The University Compliance & Integrity Office will report to the Board of Trustees on the status and activities of the taskforce.

Recommendation 3: Leadership of each university board of trustees, faculty senate, and student government annually review and endorse the Board's Statement of Free Expression and commit to the principles of civil discourse." NOTE: The first review should be completed during the 2022-2023 academic year.

FIU leadership will ask the faculty senate and student government association to review, and strongly encourage them to endorse, the Board's Statement of Free Expression at the beginning of each academic year in September, starting with the 2022 fall semester. On September 22, 2022 the Board of Trustees approved a resolution endorsing the State University System of Florida Statement of Free Expression. The FIU BOT will annually review, endorse, and renew its ongoing commitment to the principles of civil discourse..

Recommendation 4: Each board of trustees conducts a thorough review of current student orientation programs, student codes of conduct, and employee policies and procedures to ensure consistency with the Board of Governors Statement of Free Expression, the principles of free speech and civil discourse, and compliance with section 1004.097, Florida Statutes.

University academic and student affairs administrative leadership have been reviewing the current orientation program, student code of conduct, and our employee personnel policies to ensure that they include an endorsement of the Board's Statement of Free Expression and will align with the principles of free speech and civil discourse. See response to recommendation 6 for details on this process.

During the 2022-2023 academic year, the FIU Board of Trustees will conduct a thorough review of student orientation programs, student codes of conduct, and employee policies and procedures to ensure consistency with the BOG Statement of Free Expression, the principles of free speech and civil discourse, and compliance with section 1004.097, Florida Statutes.

Within its annual review process, the Division of Human Resources will review HR policies for appropriate locations where the Board of Governors Statement of Free Expression shall be placed, to provide ready reference for employees, in conducting the business of FIU. We will incorporate language in existing university policies, where appropriate, during the 2022-2023 academic year. Further, and in collaboration with the Office of Compliance and Integrity, all new policies will be evaluated to ensure that they are aligned with the Statement of Free Expression.

Recommendation 6: University academic, student affairs, and administrative leaders review student orientation programming, student codes of conduct, and employee personnel policies and procedures to ensure that they contain clear and unambiguous support for the Board's Statement of Free Expression, and the principles of free speech and civil discourse, and that they are in compliance with section 1004.097, Florida Statutes. NOTE: This recommendation may be included in the plans to implement Recommendation 4 above.

FIU already has begun reviewing the current orientation program, student code of conduct, and our employee personnel policies to ensure that they include an endorsement of the Board's Statement of Free Expression and align with the principles of free speech and civil discourse.

Regarding orientation and the onboarding of new students, we incorporated our clear support for these principles in the online components of our orientation program which students complete prior to coming to campus for their in-person orientation session, referred during the Welcome session, discussed during our session on knowing and understanding the student code of conduct, and addressed during a session on social issues and decision-making. We have added the language to our Student Handbook, and we will also be adding language to our student code of conduct to reinforce the existing references to free speech and civil discourse and will include the FIU statement of endorsement: FIU endorses the Florida Board of Governor's Statement of Free Expression to support and encourage full and open discourse and the robust exchange of ideas and perspectives on our campuses. In addition to supporting this legal right, we view this as an integral part of our ability to deliver a high-quality academic experience for our students, engage in meaningful and productive research, and provide valuable public service.

FIU's Employee Code of Conduct serves as a governance document organized to tie Key University policies to FIU's values (Truth, Freedom, Respect, Responsibility and Excellence). The Code incorporates a section on "Academic Freedom and Free Expression" which includes the FIU statement of endorsement. The Code also links directly to the Board's Statement of Free Expression and to Florida Statutes Section 1004.097 – Free Expression on Campus. These concepts are captured in FIU Regulation 110 Expressive Activities in Outdoor Areas on Campus. The Code will be acknowledged by all employees and introduced in the New Employee Experience (Orientation) and in ongoing training for employees where the Statement of Free Expression will be highlighted.

The current Faculty Handbook includes a statement on Freedom of Expression and Academic Freedom. When we update the Handbook, we will add a link to the Board's Statement.

Recommendation 7: Implementing the best practices outlined on pages 6 and 7 of the attached report based on the Board's review of university programs and initiatives that effectively promote and support civil discourse. For each best practice implemented, or to be implemented, include a timeline.

VII. The Board of Governors recommends implementing the following best practices based on its review of university programs and initiatives that effectively promote and support civil discourse.

- Instill the importance of civil discourse, academic freedom, and free speech from day one, utilizing student and employee orientation sessions, public assemblies, and official university documents and communications.
  - To instill the importance of these principles from day one, we have incorporated our clear support within various aspects of our student and employee orientation programs. An official university-wide communication from the President was sent at the beginning of the 2022 fall semester which articulated our support of the Florida Board of Governor's Statement of Free Expression. A link to the Statement was added to the university website.
- Schedule and host ongoing, campus-wide forums, dialogues, and debates on various issues and perspectives to promote open discussion, understanding, and learning opportunities.
  - As a university that encourages critical thinking and educational discussion, FIU has long supported hosting forums, dialogues and debates on various issues, encouraging differing perspectives that promote an array of learning opportunities. We will ensure the campus community is aware of mechanisms for reporting instances where they believe free expression is foreclosed. As an example, the Student Orientation highlights the various reporting tools where the FIU community can report concerns regarding civil discourse limitations and restrictions. This includes the hotline, the reporting website, and the various university offices which have developed mechanisms for reporting potential violations.
- Foster intellectual diversity by encouraging university leadership to: (1) promote viewpoint diversity and open-minded discussion and debate, and (2) highlight and enforce policies that prohibit programming that excludes participation based on race or ethnicity.
  - (1) Executive leadership has met to discuss how to promote FIU's position on the importance of viewpoint diversity and open-minded discussion and debate. University

leadership is encouraged to develop policies and procedures to include clear guidelines in support of free expression.

- (2) We have existing robust regulations and policies that prohibit discriminatory behavior. We will ensure the campus community is aware of reporting mechanisms to capture instances where they believe exclusions based on race and ethnicity are occurring.
- Avoid disinvitations by developing clear, viewpoint-neutral policies and procedures governing the invitation and accommodation of campus speakers. FIU offers equitable opportunities for speakers as an open forum for all viewpoints. We have established mechanisms for any group that wishes to rent university space. The University's premises use agreement requires compliance with federal and state law. Nevertheless, we will review the space policies and procedures to make certain they comply with applicable requirements. While the Campus Free Expression Act, provides for expressive activities in outdoor areas of campus (as opposed to rented university space), we note that the University's Board of Trustees, in 2018, approved amendments to Regulation FIU-110 following the enactment of, and to ensure compliance with, the Campus Free Expression Act, Section 1004.097, Florida Statutes.
- Provide targeted educational and professional development opportunities for university administrative employees to reinforce free expression and openminded debate norms.
  - To emphasize the importance of these principles, the department of Talent Acquisition and Management has incorporated the Board's Statement of Free Expression, and the principles of free speech and civil discourse, and their compliance with section 1004.097, Florida Statutes, into New Employee Experience (NEE) and New Faculty Orientation (NFO) beginning fall of 2022. Additionally, the standard statement has been incorporated into the HR News & Updates protocol for release on a quarterly basis. Moreover, we will incorporate the content into the university's leadership programs; Leadership Education Advancement Program (LEAP) and the President's Leadership Program (PLP). Lastly, through the established relationship with all departments' HR communication partners, we will present the Statement of Free Expression to the University's HR Liaisons during the quarterly meetings as an additional point of emphasis at the division, college, and department level.
- Encourage faculty to establish and maintain a learning environment in their classrooms and offices that supports open dialogue and the free expression of all viewpoints and create processes to evaluate the strength of such environments. The Center for the Advancement of Teaching (CAT) is collaborating with the Office of Faculty Leadership & Success (FLS) to offer support sessions and sample syllabi language to help faculty initiate and manage discourse and free expression in the classroom. This includes training faculty in the use of the anonymous feedback tool, Feedback Box. Initial efforts during the 2022-2023 academic year are focusing on highimpact courses whose content might lend itself to multiple perspectives. Support sessions include understanding the Statement: implications for specific course content. materials, and delivery; formulating assignment and discussion prompts that encourage and respect multi-perspective discourse; and navigating difficult conversations and managing missteps and emotional responses. In the high-impact classes, CAT will expand its use of the Gateway survey to provide faculty with an understanding of how their students perceive the learning environment with questions that include: I feel like I am part of the community, I feel valued and respected, and I feel like I can share my thoughts and ideas. Guided workshops will help faculty understand and use student responses to improve instruction. CAT and FLS will also work with departmental chairs

on receiving and handling student reports of classroom experiences that do not support open dialogue. Workshops began in August 2022 and will continue throughout the academic year.

#### The Board of Governors as Advocate - Recommendation I

The Board of Governors expects that the leadership at each university will operationalize the Board's commitment to open-minded and tolerant civil discourse by promoting, supporting, and regularly evaluating adherence to the principles set forth in the Board's Statement of Free Expression and cultivating a culture of civil discourse in all campus interactions, including academic, administrative, extracurricular, and social dealings.

Describe the operationalization of the Board's commitment to the Statement of Free Expression and cultivation of a culture of civil discourse under the appropriate category (in progress or implemented). If "in progress," please add the anticipated implementation date.

In Progress Implemented

Operationalization of the Board's commitment to the Statement of Free Expression and cultivating a culture of civil discourse

If "in progress," anticipated implementation date:

Prior to the fall 2022 semester, the President created a taskforce with representation from Human Resources, Strategic Communications, Office of the Provost, Office of Faculty Leadership and Success, Office of General Counsel and the Office of Compliance and Integrity. The taskforce was charged with periodic review, making recommendations for implementation, and reporting to administration. The taskforce will set agenda items for the year and will operationalize universitywide communications to various stakeholders through existing groups such as the Chairs Advisory Council, Deans Advisory Council, Human Resources Liaisons, Student Government Association, Faculty Senate, etc. An official university-wide communication from the President highlighting the university's support for and culture of civil discourse will be sent to all students, faculty, and staff annually. The University Compliance & Integrity Office will report to the Board of Trustees on the status and activities of the taskforce.

### **University Planning – Recommendation II**

The Board of Governors recommends that each university's Accountability Plan and Strategic Plan include a specific endorsement of the Board's Statement of Free Expression, as well as a clear expectation for open-minded and tolerant civil discourse throughout the campus community. The Board of Governors will include similar statements and principles in its Strategic Plan for the State University System.

Use the drop-down arrows in columns A and B to indicate if the university's Accountability Plan and Strategic Plan include a specific endorsement of the Board's Statement of Free Expression, as well as a clear expectation for open-minded and tolerant civil discourse throughout the campus community. If "in progress," please add the anticipated completion date.

#### **Accountability Plan**

**Strategic Plan** 

Completed

If "in progress," anticipated completion date:

In Progress

**If "in progress," anticipated completion date:** No later than the expiration of the current strategic plan: Next Horizon 2025.

# University Leadership - Recommendation III

The Board of Governors recommends that the leadership of each university board of trustees, faculty senate, and student government annually review and endorse the Board's Statement of Free Expression and commit to the principles of civil discourse. NOTE: The first review should be completed during the 2022-2023 academic year.

> Use the drop-down arrows in columns B, C, and D to indicate if the university board of trustees, faculty senate, and student government are in progress or have completed the review and endorsement of the Board's Statement of Free Expression and committed to the principles of civil discourse. If "in progress," please add the anticipated completion

**University Board of Trustees Faculty Senate Student Government** 

Review and endorse the Board's Statement of Free Expression and commit to the principles of civil discourse

Completed

If "in progress," anticipated completion date:

In Progress

In Progress

than the end of the Spring 2023 semester.

If "in progress," anticipated completion date: No later If "in progress," anticipated completion date: No later than end of Fall 2022.

# University Leadership – Recommendation IV

The Board of Governors recommends that each **board of trustees** conducts a thorough review of current student orientation programs, student codes of conduct, and employee policies and procedures to ensure consistency with the Board of Governors Statement of Free Expression, the principles of free speech and civil discourse, and compliance with section 1004.097, Florida Statutes.

Use the drop-down arrows in columns B, C, and D to indicate if the reviews of student orientation programming, student codes of conduct, and employee personnel policies and procedures for consistency with the Board's Statement of Free Expression, principles of free speech and civil discourse, and compliance with section

1004.097, Florida Statutes are in progress or have been completed. If "in progress," please add the anticipated completion date.

The BOT will conduct a thorough review: **Board's Statement of Free Expression Principles of Free Speech & Civil Discourse** section 1004.097, Florida Statutes Student orientation programming In Progress In Progress In Progress If "in progress," anticipated completion date: No If "in progress," anticipated completion date: No If "in progress," anticipated completion date: No later than the end of the Spring 2023 semester. later than the end of the Spring 2023 semester. later than the end of the Spring 2023 semester. Student codes of conduct In Progress In Progress In Progress If "in progress," anticipated completion date: No If "in progress," anticipated completion date: No If "in progress," anticipated completion date: No later than the end of the Spring 2023 semester. later than the end of the Spring 2023 semester. later than the end of the Spring 2023 semester. **Employee personnel policies and procedures** In Progress In Progress In Progress If "in progress," anticipated completion date: No If "in progress," anticipated completion date: No If "in progress," anticipated completion date: No later than the end of the Spring 2023 semester. later than the end of the Spring 2023 semester. later than the end of the Spring 2023 semester.

# Academic, Student, and Administrative Affairs – Recommendation VI

The Board of Governors recommends that university academic, student affairs, and administrative leaders review student orientation programming, student codes of conduct, and employee personnel policies and procedures to ensure that they contain clear and unambiguous support for the Board's Statement of Free Expression, and the principles of free speech and civil discourse, and that they are in compliance with section 1004.097, Florida Statutes.

Use the drop-down arrows in columns B, C, and D to indicate if the reviews of student orientation programming, student codes of conduct, and employee personnel policies and procedures for support for the Board's Statement of Free Expression, principles of free speech and civil discourse, and compliance with section 1004.097, Florida Statutes are in progress or have been completed. If "in progress," please add the anticipated completion date.

Review by Academic Affair Leaders	Board's Statement of Free Expression	Principles of Free Speech & Civil Discourse	section 1004.097, Florida Statutes
Student orientation programming	Completed  If "in progress," anticipated completion date:	Completed  If "in progress," anticipated completion date:	Completed  If "in progress," anticipated completion date:
Student codes of conduct	Completed  If "in progress," anticipated completion date:	Completed  If "in progress," anticipated completion date:	Completed  If "in progress," anticipated completion date:
Employee personnel policies and procedures	In Progress  If "in progress," anticipated completion date:  December, 2022	Completed  If "in progress," anticipated completion date:	Completed  If "in progress," anticipated completion date:
Review by Student Affair Leaders	Board's Statement of Free Expression	Principles of Free Speech & Civil Discourse	section 1004.097, Florida Statutes
Student orientation programming	Completed  If "in progress," anticipated completion date:	Completed  If "in progress," anticipated completion date:	Completed  If "in progress," anticipated completion date:
Student codes of conduct	Completed  If "in progress," anticipated completion date:	Completed  If "in progress," anticipated completion date:	Completed  If "in progress," anticipated completion date:
Employee personnel policies and procedures	In Progress  If "in progress," anticipated completion date:  December, 2022	Completed  If "in progress," anticipated completion date:	Completed  If "in progress," anticipated completion date:
Review by Administrative Leaders	Board's Statement of Free Expression	Principles of Free Speech & Civil Discourse	section 1004.097, Florida Statutes
Student orientation programming	Completed  If "in progress," anticipated completion date:	Completed  If "in progress," anticipated completion date:	Completed  If "in progress," anticipated completion date:
Student codes of conduct	Completed  If "in progress," anticipated completion date:	Completed  If "in progress," anticipated completion date:	Completed  If "in progress," anticipated completion date:
Employee personnel policies and procedures	In Progress  If "in progress," anticipated completion date:  December, 2022	Completed  If "in progress," anticipated completion date:	Completed  If "in progress," anticipated completion date:

#### **Best Practices for Civil Discourse - Recommendation VII**

The Board of Governors recommends implementing the following best practices based on its review of university programs and initiatives that effectively promote and support civil discourse.

Describe the best practices the university has implemented or is in the process of implementing. If "in progress," please add the anticipated implementation date.

In Progress Implemented

1. Instill the importance of civil discourse, academic freedom, and free speech from day one, utilizing student and employee orientation sessions, public assemblies, and official university documents and communications.

If "in progress," anticipated implementation date:

2. Schedule and host ongoing, campus-wide forums, dialogues, and debates on various issues and perspectives to promote open discussion, understanding, and learning opportunities.

If "in progress," anticipated implementation date:

To instill the importance of these principles from day one, we have incorporated our clear support within various aspects of our student and employee orientation programs. An official university-wide communication from the President was sent at the beginning of the 2022 fall semester which articulated our support of the Florida Board of Governor's Statement of Free Expression. A link to the Statement was added to the university website.

As a university that encourages critical thinking and educational discussion, FIU has long supported hosting forums, dialogues and debates on various issues, encouraging differing perspectives that promote an array of learning opportunities. We will ensure the campus community is aware of mechanisms for reporting instances where they believe free expression is foreclosed. As an example, the Student Orientation highlights the various reporting tools where the FIU community can report concerns regarding civil discourse limitations and restrictions. This includes the hotline, the reporting website, and the various university offices which have developed mechanisms for reporting potential violations.

3. Foster intellectual diversity by encouraging university leadership to: (1) promote viewpoint diversity and open-minded discussion and debate, and (2) highlight and enforce policies that prohibit programming that excludes participation based on race or ethnicity.	If "in progress," anticipated implementation date:
4. Avoid disinvitations by developing clear, viewpoint-neutral policies and procedures governing the invitation and accommodation of campus speakers.	If "in progress," anticipated implementation date:

- (1) Executive leadership has met to discuss how to promote FIU's position on the importance of viewpoint diversity and open-minded discussion and debate. University leadership is encouraged to develop policies and procedures to include clear guidelines in support of free expression.
- (2) We have existing robust regulations and policies that prohibit discriminatory behavior. We will ensure the campus community is aware of reporting mechanisms to capture instances where they believe exclusions based on race and ethnicity are occurring.

FIU offers equitable opportunities for speakers as an open forum for all viewpoints. We have established mechanisms for any group that wishes to rent university space. The University's premises use agreement requires compliance with federal and state law. Nevertheless, we will review the space policies and procedures to make certain they comply with applicable requirements. While the Campus Free Expression Act, provides for expressive activities in outdoor areas of campus (as opposed to rented university space), we note that the University's Board of Trustees, in 2018, approved amendments to Regulation FIU-110 following the enactment of, and to ensure compliance with, the Campus Free Expression Act, Section 1004.097, Florida Statutes.

**5. Provide targeted educational and professional development opportunities for university administrative employees to reinforce free expression and open-minded debate norms.**Expression to the University's HR Liaisons during the quarter meetings as an additional point of emphasis at the division, college, and department level.

To emphasize the importance of these principles, the department of Talent Acquisition and Management has incorporated the Board's Statement of Free Expression, and the principles of free speech and civil discourse, and their compliance with section 1004.097, Florida Statutes, into New Employee Experience (NEE) and New Faculty Orientation (NFO) beginning fall of 2022. Additionally, the standard statement has been incorporated into the HR News & Updates protocol for release on a quarterly basis. Moreover, we will incorporate the content into the university's leadership programs; Leadership Education Advancement Program (LEAP) and the President's Leadership Program (PLP). Lastly, through the established relationship with all departments' HR communication partners, we will present the Statement of Free Expression to the University's HR Liaisons during the quarterly meetings as an additional point of emphasis at the division, college, and department level.

**If "in progress," anticipated implementation date:** No later than the end of the Spring 2023 semester.

The Center for the Advancement of Teaching (CAT) is collaborating with the Office of Faculty Leadership & Success (FLS) to offer support sessions and sample syllabi language to help faculty initiate and manage discourse and free expression in the classroom. This includes training faculty in the use of the anonymous feedback tool, Feedback Box. Initial efforts during the 2022-2023 academic year are focusing on high-impact courses whose content might lend itself to multiple perspectives. Support sessions include understanding the Statement; implications for specific course content, materials, and delivery; formulating assignment and discussion prompts that encourage and respect multi-perspective discourse; and navigating difficult conversations and managing missteps and emotional responses. In the highimpact classes, CAT will expand its use of the Gateway survey to provide faculty with an understanding of how their students perceive the learning environment with questions that include: I feel like I am part of the community, I feel valued and respected, and I feel like I can share my thoughts and ideas. Guided workshops will help faculty understand and use student responses to improve instruction. CAT and FLS will also work with departmental chairs on receiving and handling student reports of classroom experiences that do not support open dialogue. Workshops began in August 2022 and will continue throughout the academic year.

**If "in progress," anticipated implementation date:** No later than the end of the Spring 2023 semester.

6. Encourage faculty to establish and maintain a learning environment in their classrooms and offices that supports open dialogue and the free expression of all viewpoints and create processes to evaluate the strength of such environments.